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Items
                Description
Set
        45418
S1
                CANULA? OR CANNULA? OR CATHETER?
S2
                DC=(E01.370.370.380.410.200 OR E02.148.110 OR E5.135 OR E5-
             .140 OR E5.145 OR E2.620.135)
S3
        13415
                STYLET? OR GUIDEWIRE? OR GUIDE()WIRE? OR STIFFENER?
S4
         5697
                (CURVEABLE OR CURVABLE OR MALLEABLE OR FLEXIBLE OR DEFORMA-
             BLE OR CURVATE OR BENDABLE) (2N) (WIRE? OR PROBE? OR NEEDLE? OR
             INTRODUCER? OR ADVANCER?)
S5
      1307378
                METHOD? OR PROCEDURE?
S6
      1428642
                SYSTEM? OR PROCESS?
S7
       516688
                INSERT? OR MANIPULAT?
S8
       927832
                REMOV? OR CONDUCT?
S9
       248018
                DISCHARG? OR PERFUS? OR INFUS?
S10
       187735
                VESSEL? OR VASCULA? OR VEIN? OR ARTERY? OR ARTERIE? OR BLO-
             ODVESSEL?
S11
         4767
                RETROGRADE? OR RETRO() GRADE? OR ANTIGRADE OR ANTEGRADE OR -
             (ANTI OR ANTE) () GRADE OR CARDIOPL?GIA? OR RETROPL?GIA? OR (CA-
             RDIO OR RETRO) () PL?GIA?
S12
                DC=(E04.100.376.374 OR D18)
S13
        41374
                BALLOON? OR INFLAT?
S14
       957952
                LUMEN? OR INLET? OR OUTLET? OR PASSAGE? OR PORT?
        31272
                IC=A61M?
S15
         4476
                S1:S2 AND S3:S4 AND S5:S6 AND S7:S9 AND S10 AND S13 AND S14
S16
                S16 AND S5:S6(5N)S7:S9 AND S7:S9(5N)S3:S4
S17
         1705
         1229
                S17 AND S7:S9(5N)S14
S18
S19
           88
                S18 AND S11(5N)S1:S2
S20
           59
                S19 AND S15
           54
                S20 AND PY<2003
S21
S22
           54
                IDPAT (sorted in duplicate/non-duplicate order)
? show files
File 348:EUROPEAN PATENTS 1978-2003/Nov W05
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20031211,UT=20031204
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(c) 2003 WIPO/Univentio

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22/3/2
           (Item 2 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
00594895
Stylet for installing a retrograde coronary cannula
Stilett zum Einsetzen einer retrograden koronaren Kanule
 Stylet pour la mise en place d'une canule coronaire retrograde
PATENT ASSIGNEE:
 MINNESOTA MINING AND MANUFACTURING COMPANY, (300410), 3M Center, P.O. Box
    33427, St. Paul, Minnesota 55133-3427, (US), (applicant designated
    states: DE;FR;GB)
INVENTOR:
  Boykin, Christopher M., c/o Minnesota Mining and, Manufact. Co., 2501
    Hudson Road, P.O. Box 33427, St. Paul, Minnesota 55133-3427, (US)
  Vaalburg, Thomas T., c/o Minnesota Mining and, Manufact. Co., 2501 Hudson
    Road, P.O. Box 33427, St. Paul, Minnesota 55133-3427, (US)
LEGAL REPRESENTATIVE:
  VOSSIUS & PARTNER (100314), Siebertstrasse 4, D-81675 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 598403 A1 940525 (Basic)
                              EP 598403 B1 960410
                              EP 93118590 931118;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): US 979010 921119
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: A61M-025/01; A61B-017/34
ABSTRACT WORD COUNT: 86
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text
                                     Word Count
               Language
                           Update
                           EPABF2
      CLAIMS A
                (English)
                                        456
                                       502
      CLAIMS B
                (English)
                           EPAB96
                                       523
      CLAIMS B
                ·(German)
                           EPAB96
      CLAIMS B
                 (French)
                           EPAB96
                                       561
      SPEC A
                (English)
                           EPABF2
                                      2486
      SPEC B
                (English)
                           EPAB96
                                      2647
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2942

4233

Total word count - document A

Total word count - document B

Total word count - documents A + B

1

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22/5/11
            (Item 11 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
00333240
IMPROVED RETROGRADE PERFUSION .
RETROGRADE PERFUSION .
 PERFUSION RETROGRADE AMELIOREE.
PATENT ASSIGNEE:
  CANOPY EDGE, INC., (1745100), 5620 Greenbriar Suite 105, Houston, Texas
    77005, (US), (applicant designated states:
    AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE)
INVENTOR:
  Calderon, Reynaldo, 5620 Greenbriar, Suite 105, Houston, Texas 77005,
    (US)
LEGAL REPRESENTATIVE:
  Allman, Peter John et al (27675), MARKS & CLERK Suite 301 Sunlight House
    Quay Street, Manchester M3 3JY, (GB)
PATENT (CC, No, Kind, Date): EP 331710 A1
                                            890913 (Basic)
                              EP 331710 A1
                                            901003
                              EP 331710 B1
                                            940427
                              WO 8901309 890223
                              EP 88908482 880808; WO 88US2692
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): US 83673 870807
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61M-025/00
CITED PATENTS (EP A): US 4655746 A
CITED PATENTS (WO A): US 2854982 A; US 3888239 A; US 4192302 A; US 4445892
  A; US 4708718 A; US 4709703 A; US 4714460 A
CITED REFERENCES (EP A):
  See also references of WO8901309;
CITED REFERENCES (WO A):
  KATO et al, "Arterial Chemoembolization with Microencapsulated Anticancer
    Drug" Jama; 20 March, 1981, Vol 245, No. 11 pages 1123-1127, see page
    1124, column 1, lines 10-44;
ABSTRACT EP 331710 A1
    Tumours in the body of a patient are studied in situ by a monitor (12),
  such as computer assisted tomography, X-ray or the like, while optimal
  flow paths through the tumour area are established. A catheter (52)
                                                lumen (25), with seals
  with a suction lumen (50) and an infusion
  (22, 56) associated with each, is placed in the patient's vein near the
  tumor. Flow is then sealed in the vein with the infusion seal (56). A
  carrier medium dye is injected into the tumor at selected flow rates and
  differential pressures. Flow of the dye through the tumor is observed on
  the monitor (12) to determine optimal retrograde perfusion paths
  through the tumor for the selected flow rates and differential pressures.
  Once the optimal perfusion paths are noted, microspheres with active
  ingredients, such as chemotherapy, can be selectively perfused through
  each of the paths in the tumor at desired flow rates, pressures and
  active ingredient dosages.
ABSTRACT WORD COUNT: 160
NOTE:
  No A-document published by EPO
LEGAL STATUS (Type, Pub Date, Kind, Text):
                  020605 B1 Date of lapse of European Patent in a
 Lapse:
                            contracting state (Country, date): AT
                            19940427, IT 19940427, NL 19940427, SE
```

19940427,

Application: 890913 Al Published application (Alwith Search Report ;A2without Search Report) Examination: 890920 Al Date of filing of request for examination: 890721 Change: 900912 Al International patent classification (change) Search Report: 901003 Al Drawing up of a supplementary European search report: 900813 Examination: 920909 Al Date of despatch of first examination report: 920728 Change: 940406 Al Representative (change) \*Assignee: 940406 Al Applicant (transfer of rights) (change): CANOPY EDGE, INC. (1745100) 5620 Greenbriar Suite 105 Houston, Texas 77005 (US) (applicant designated states: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE) Grant: 940427 B1 Granted patent 950111 B1 Date of lapse of the European patent in a Lapse: Contracting State: AT 940427 950322 B1 Date of lapse of the European patent in a Lapse: Contracting State: AT 940427, NL 940427 Oppn None: 950419 B1 No opposition filed Lapse: 991020 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 19940427, IT 19940427, NL 19940427, LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available	Text	Language	Update	Word Count
CLA	IMS B	(English)	EPBBF1	426
CLA	IMS B	(German)	EPBBF1	407
CLA	IMS B	(French)	EPBBF1	495
, SPE	СВ	(English)	EPBBF1	4089
Total wor	d coun	t - documen	it A	0
Total wor	l word count - document B			5417
Total wor	d coun	t - documen	its A + B	5417

(Item 12 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00938384 \*\*Image available\*\* BALLOON CATHETER AND METHOD OF USE CATHETER A BALLONNET ET SON PROCEDE D'UTILISATION Patent Applicant/Inventor: GALLAGHER Robert C, 186 Coldbrook Road, Glastonbury, CT 06033, US, US (Residence), US (Nationality) Legal Representative: LIBERT Victor E (et al) (agent), Libert & Associates, 3 Mill Pond Lane, P.O. Box 538, Simbsbury, CT 06070-0538, US, Patent and Priority Information (Country, Number, Date): WO 200272170 A2-A3 **20020919** (WO 0272170) Application: WO 2002US7070 20020307 (PCT/WO US0207070) Priority Application: US 2001274286 20010308 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: A61M-029/00 Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 8372

## English Abstract

A retrograde venous cardioplegia balloon catheter (20) has a flexible cannula (22) on which is mounted an inflatable, tapered balloon (34) which divides the flexible cannula (22) into a proximal portion (22a) which is stiffer than a distal portion (22b). Balloon (34) may be inserted into a body opening, such as the ostium (46) of a human heart (52) to position soft, flexible distal portion (22b) within the coronary sinus (44). Balloon (34) is inflated to seal the ostium (46) and force may be applied by means of the stiff proximal portion (22a) to maintain the turgid balloon (34) in place to seal the ostium and leave substantially the entire coronary sinus (44) open to infusion by cardioplegia solution. A method of using the balloon catheter (20) includes positioning inflatable balloon (34) within the ostium (46) and imposing a force (e.g., by collapsing the right atrial wall) via distal portion (22b) on balloon (34) in its turgid condition, to maintain it in place within ostium (46).

#### French Abstract

Catheter a ballonnet (20) concu pour une cardioplegie veineuse retrograde et possedant une canule souple (22) sur laquelle est monte un ballonnet conique gonflable (34) divisant la canule flexible (22) en une partie proximale (22a) plus rigide qu'une partie distale (22b). On peut inserer ce ballonnet (34) dans une ouverture corporelle, telle que l'ostium (46) du coeur humain (52) afin de positionner la partie distale (22b) molle et souple a l'interieur du sinus coronarien (44). On gonfle le ballonnet (34) afin de fermer hermetiquement l'ostium (46) et on peut appliquer une force au moyen de la partie proximale rigide (22a) afin de

maintenir le ballonnet gonfle (34) en position, de maniere a fermer hermetiquement l'ostium et a laisser la totalite du sinus coronarien (44) ouverte afin de **perfuser** la solution cardioplegique. Procede d'utilisation de ce **catheter** a ballonnet (20) consistant a positionner le ballonnet gonflable (34) a l'interieur de l'ostium (46) et a exercer une force (par exemple, par repli de la paroi auriculaire droite) par l'intermediaire de la partie distale (22b) sur le ballonnet gonfle (34) afin de le maintenir en position a l'interieur de l'ostium (46).

Legal Status (Type, Date, Text)
Publication 20020919 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20021114 Late publication of international search report Republication 20021114 A3 With international search report.

Republication 20021114 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(Item 13 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. \*\*Image available\*\* 00889868 CANNULA PERFUSION CANULE POUR PERFUSION Patent Applicant/Inventor: NAVIA Jose A, Suipacha 1308-4B, 1011 Buenos Aires, AR, AR (Residence), AR (Nationality) JORDANA Jorge L, Juana Azurduy 2304, 1429 Buenos Aires, AR, AR (Residence), CA (Nationality) Patent and Priority Information (Country, Number, Date): Patent: WO 200222197 A2-A3 **20020321** (WO 0222197) Application: WO 2001IB1640 20010911 (PCT/WO IB0101640) Priority Application: US 2000659937 20000912 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ (utility model) DE (utility model) DK (utility model) DM DZ EC EE (utility model) ES FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: A61M-039/02 International Patent Class: A61B-017/12 Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 6040

# English Abstract

A perfusion cannula having a proximal section configured for attachment to a source of perfusion fluid, and a distal section configured for insertion in a blood vessel for delivering perfusion fluid to the blood vessel. In one embodiment, the cannula generally comprises a shaft having a proximal end, a distal end, a distal shaft section between the proximal and distal ends of the distal shaft section such that an acute angle is formed between the proximal shaft section and the proximal end of the distal shaft section. A lumen in the elongated shaft extends within the proximal shaft section and the distal shaft section to and in fluid communication with a port in the distal end of the distal shaft section. The lumen is configured for delivery of fluid, and may be configured for slidably receiving a guidewire therein.

## French Abstract

Cette canule pour **perfusion** comporte une partie proximale, concue pour se rattacher a une source de liquide de **perfusion**, et une partie distale concue pour etre introduite dans un vaisseau sanguin afin d'administrer le liquide de **perfusion**. Dans un mode de realisation, la canule comporte, generalement, une tige ayant une extremite proximale, une extremite distale et, entre ces deux extremites, une section distale, de sorte qu'un angle aigu est forme entre la section proximale et la section distale de la tige. Une lumiere menagee dans la tige, qui traverse les deux sections, proximale et distale, est en communication

fluidique avec un orifice situe dans l'extremite distale de la section distale de la tige. Cette lumiere, qui est concue pour delivrer un liquide, peut etre configuree pour renfermer un fil-guide coulissant.

Legal Status (Type, Date, Text)
Publication 20020321 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20020815 Late publication of international search report Republication 20020815 A3 With international search report.

```
22/5/18
            (Item 18 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
            **Image available**
00808603
 CATHETER WITH STYLET
                          LUMEN
 CATHETER AVEC LUMIERE POUR STYLET
Patent Applicant/Assignee:
  DURECT CORPORATION, 10240 Bubb Road, Cupertino, CA 95014, US, US
    (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
  GILLIS Edward M, 1202 Stafford Drive, Cupertino, CA 95014, US, US
    (Residence), US (Nationality), (Designated only for: US)
  FILICE James A, 1555 Elwood Drive, Los Gatos, CA 95032, US, US
    (Residence), US (Nationality), (Designated only for: US)
  THEEUWES Felix, 27350 Altamont Road, Los Altos Hills, CA 94022, US, US
    (Residence), BE (Nationality), (Designated only for: US)
Legal Representative:
  BORDEN Paula A (agent), Bozicevic, Field & Francis LLP, Suite 200, 200
    Middlefield Road, Menlo Park, CA 94025, US,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 200141858 A2-A3 20010614
                                                      (WO 0141858)
  Application:
                        WO 2000US33476 20001207 (PCT/WO US0033476)
  Priority Application: US 99457502 19991208
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ
  DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
  LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG
  SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: A61M-025/00
International Patent Class: A61M-025/01
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 12134
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## English Abstract

The present invention features a catheter suitable for drug delivery. The catheter comprises a catheter body comprising a proximal and a distal end, and defining a drug delivery lumen and a stylet lumen comprises a distal end configured to permit a stylet to abut the stylet lumen distal end, and a proximal aperture which is distal to the proximal end of the catheter , providing entry of the stylet into the side of the catheter. The stylet lumen is adapted for slidably receiving a stylet which can be used to guide the catheter to the intended site in the body of a subject and thus to facilitate implantation of the catheter .

## French Abstract

La presente invention concerne un catheter utilisable pour l'administration de medicaments. Le catheter comprend un corps de catheter comprenant des extremites proximale et distale et delimitant une lumiere d'administration de medicaments et une lumiere de stylet . La lumiere de stylet comprend une extremite distale configuree pour permettre a un stylet de se mettre bout a bout avec l'extremite distale de la lumiere du **stylet** et une ouverture proximale qui est distale par rapport a l'extremite proximale du **catheter**, avec entree pour **stylet** sur le cote du **catheter**. La lumiere du **stylet** est concue pour recevoir coulissant un **stylet** qui peut servir a guider le **catheter** jusqu'au site d'interet dans le corps du patient et faciliter ainsi l'implantation du **catheter**.

Legal Status (Type, Date, Text)
Publication 20010614 A2 Without international search report and to be republished upon receipt of that report.

Examination 20011018 Request for preliminary examination prior to end of 19th month from priority date

Search Rpt 20020131 Late publication of international search report Republication 20020131 A3 With international search report.

22/5/19 (Item 19 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00780854 \*\*Image available\*\* METHOD AND APPARATUS FOR DIFFERENTIALLY PERFUSING A PATIENT DURING CARDIOPULMONARY BYPASS TECHNIQUE ET DISPOSITIF D'EXECUTION D'UNE PERFUSION DIFFERENTIELLE SUR UN PATIENT PENDANT UNE CIRCULATION EXTRA-CORPORELLE Patent Applicant/Assignee: CARDEON CORPORATION, 10161 Bubb Road, Cupertino, CA 95014, US, US (Residence), US (Nationality) Inventor(s): ROBINSON Janine, 101 Alameda Avenue, Half Moon Bay, CA 94019, US, SAMSON Wilfred J, 19639 Farwell Avenue, Saratoga, CA 95070, US, MACOVIAK A John, 5412 Thunderbird Lane, La Jolla, CA 92037, US, YOUNG Lisa M, 1466 Cronwell Drive, Campbell, CA 95008, US, ESCH Brady, 3349 Ensalmo Avenue, San Jose, CA 95118, US, LEE Mike, 1164 Pacific Avenue, San Francisco, CA 94133, US, OLSEN Eric, 110 Oak Rim Court #34, Los Gatos, CA 95032, US, Legal Representative: HANKE Gunther (agent), Fulwider Patton Lee & Utecht LLP, 200 Oceangate, Suite 1550, Long Beach, CA 90802, US, Patent and Priority Information (Country, Number, Date): Patent: WO 200113983 A2-A3 20010301 (WO 0113983) Application: WO 2000US21088 20000802 (PCT/WO US0021088) Priority Application: US 99368450 19990804 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: A61M-025/10 International Patent Class: A61B-017/12 Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 26255

#### English Abstract

The present invention provides methods, systems and devices for performing cardiopulmonary bypass (CPB), cardioplegic arrest, suction of fluid from the aorta to remove embolic or other fluid from the general circulation and the selective segmentation of the arterial system to perform differential perfusion eliminating hypoperfusion. An aortic catheter having an arch lumen which extends at least in part along the length of the catheter shaft has a proximal opening coupled to a CPB machine and a distal arch opening. A corporeal lumen extends at least in part along the length of the catheter shaft and has a proximal opening coupled to a CPB machine and a distal corporeal opening. A suction lumen extends at least in part along the length of the catheter shaft and has a proximal suction opening coupled to a suction source and a distal suction opening residing in the aortic lumen of a patient.

### French Abstract

La presente invention concerne des techniques, des systemes et des

dispositifs utilisables dans les cas suivants : circulation extra-corporelle, arret par cardioplegie, aspiration de l'aorte en d'un liquide embolique ou autre et segmentation selective du systeme arteriel en vue de l'execution d'une perfusion differentielle avec elimination d'hypoperfusion. Un catheter aortique avec lumen de crosse qui se prolonge au moins en partie le long de la tige de catheter presente une ouverture proximale reliee a une machine de circulation extra-corporelle et une ouverture en cintree distale. Une lumiere corporelle, qui occupe au moins une partie de la longueur de la tige de catheter, comporte une ouverture(inverted question mark) ?d'aspiration proximale reliee a une source d'aspiration et une ouverture d'aspiration distale logee dans la lumiere aortique du patient. Le catheter aortique decrit ci-dessus peut s'utiliser avec d'autres dispositifs et constituer ainsi un systeme de catheter comprenant une machine de circulation extra-corporelle, une source d'aspiration, divers contacteurs et un ensemble canule veineuse/catheter assurant la circulation extra-corporelle complete ou partielle ainsi que de debit de liquide antegrade ou retrograde. Ce systeme peut par ailleurs etre utilise dans le cadre de divers modes operatoires, dont techniques avec catheter coeur arrete, interventions chirurgicales concommitantes et interventions avec catheter, interventions chirurgicales sequentielles et interventions avec catheter et interventions et procedures d'appoint ou d'interruption rapide coeur battant avec catheter. Ce systeme permet d'assister le systeme circulatoire du patient et de proteger prioritairement la circulation cerebrale et corporelle.

Legal Status (Type, Date, Text)
Publication 20010301 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20010719 Late publication of international search report Republication 20010719 A3 With international search report.

Examination 20020704 Request for preliminary examination prior to end of 19th month from priority date

22/5/20 (Item 20 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00775509 \*\*Image available\*\* DEVICE FOR EMBOLI, THROMBUS AND FOREIGN BODY REMOVAL AND VASCULAR METHODS OF USE VASCULAIRE PERMETTANT LE RETRAIT DES EMBOLES, DES THROMBUS ET DISPOSITIF DES CORPS ETRANGERS ET PROCEDES D'UTILISATION Patent Applicant/Assignee: INCEPT LLC, 308 Greenfield Avenue, San Mateo, CA 94403, US, US (Residence), US (Nationality) HOPKINS L N, 3 Gates Circle, Buffalo, NY 14209, US KHOSRAVI Farhad, 308 Greenfield Avenue, San Mateo, CA 94403, US SALAHIEH Amr, 935 Lovell Avenue, Campbell, CA 95006, US DEMOND Jackson F, 149 Plateau Avenue, Santa Cruz, CA 95080, US LEPAK Jonah, 303 Laguna Street, Santa Cruz, CA 95060, US RAMEE Stephen, 1514 Jefferson Highway, New Orleans, LA 70121, US KROLIK Jeff A, 526 Railway Avenue #701, Campbell, CA 95008, US RENATI Richard, 1069 Morse Street, San Jose, CA 95126, US Legal Representative: PISANO Nicola A, Fish & Neave, 1251 Avenue of the Americas, New York, NY 10020, US Patent and Priority Information (Country, Number, Date): Patent: WO 200108743 A1 20010208 (WO 0108743) WO 2000US20754 20000728 (PCT/WO US0020754) Application: Priority Application: US 99364064 19990730; US 99430211 19991029; US 99470681 19991223; US 99470682 19991223; US 99470703 19991223; US 99470857 19991223; US 2000611428 20000707 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Main International Patent Class: A61M-029/00 Publication Language: English Filing Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 15808

# English Abstract

Apparatus (20) is provided for use in filtering emboli from a **vessel**; and/or performing thrombectomy, and embolectomy. A **vascular** device (50) comprises one or more support hoops (263, 264) connected near a distal end of a **guide** wire (252), and a blood permeable sac (258) affixed to the support hoop or hoops to form a mouth of the blood permeable sac. The mouth of the sac closes when the apparatus is collapsed for **removal** to prevent material from escaping from the sac.

## French Abstract

La presente invention concerne un appareil (20) qui permet de filtrer les emboles contenus dans un vaisseau et/ou d'effectuer une thrombectomie et une embolectomie. Un dispositif vasculaire (50) comprend un ou plusieurs arceaux de soutien (263,264) relies a proximite de l'extremite

distale d'un fil guide (252), et un sac permeable au sang (258) fixe sur l'arceau ou les arceaux de soutien afin de former l'ouverture du sac permeable au sang. L'ouverture du sac se ferme lorsque l'appareil se trouve en position affaissee afin d'empecher que de la matiere s'echappe

Legal Status (Type, Date, Text)

20010208 Al With international search report. Publication

Examination 20010628 Request for preliminary examination prior to end of 19th month from priority date

22/5/22 (Item 22 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00763382 \*\*Image available\*\*
METHODS AND LOW PROFILE APPARATUS

METHODS AND LOW PROFILE APPARATUS FOR REDUCING EMBOLIZATION DURING TREATMENT OF CAROTID ARTERY DISEASE

METHODES ET APPAREIL A CONFIGURATION PLATE PERMETTANT DE REDUIRE LES RISQUES D'EMBOLIE LORS DU TRAITEMENT D'UNE AFFECTION DE L'ARTERE CAROTIDE

Patent Applicant/Assignee:

ARTERIA MEDICAL SCIENCE INC, The Presidio, Old Army Headquarters, Building 220, Suite 120, P.O. Box 29448, San Francisco, CA 94129, US, US (Residence), US (Nationality)

Inventor(s):

PARODI Juan Carlos, Blanco Encalada 1543, Capital Federal, Buenos Aires, 1428, AR,

OHKI Takao, Medical Arts Pavilion, 4th Floor, Vascular Surgery, 111 East 210th Street, New York, NY 10467, US,

Legal Representative:

PISANO Nicola A (agent), Fish & Neave, 1251 Avenue of the Americas, New York, NY 10020, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200076390 A2-A3 **20001221** (WO 0076390)
Application: WO 2000US16393 20000614 (PCT/WO US0016393)

Priority Application: US 99333074 19990614; US 99155120 19990922; US 99418727 19991015; US 2000528569 20000320; US 2000528958 20000320

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61M-029/00

Publication Language: English

Filing Language: English Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 8534

# English Abstract

Methods and apparatus are provided for removing emboli during an angioplasty, stent, or surgical procedure comprising a catheter (11) having an occlusion element (10), an aspiration lumen, a blood outlet port in communication with the lumen, a guide wire (20) having a balloon, a venous return catheter with a blood inlet port (51), and tubing that couples the blood outlet port (48) to the blood inlet port. A blood filter (50), a flow sensor, a flow control valve (175). A pump may also be included in-line with the tubing to better facilitate filtering of emboli from blood reperfused into the patient, to better monitor, and control the degree of flow reversal.

# French Abstract

L'invention concerne des **methodes** et un appareil permettant d'eliminer les emboles au cours d'interventions chirurgicales telles que l'angioplastie ou la mise en place d'une prothese endovasculaire. Ledit appareil comprend un **catheter** pourvu d'un element d'occlusion, d'une

lumiere d'aspiration et d'un orifice de sortie du sang communiquant avec la lumiere, un fil guide pourvu d'un ballonnet, un catheter de retour veineux pourvu d'un orifice d'entree du sang, et des tubulures couplant l'orifice de sortie du sang a l'orifice d'entree du sang. L'appareil selon l'invention peut egalement comporter un hemofiltre, un detecteur de debit, une valve de regulation du debit, et/ou une pompe, disposes en ligne avec les tubulures de maniere a permettre d'une part, un meilleur filtrage des emboles eventuellement presents dans le sang reperfuse au patient et d'autre part, une surveillance et une regulation ameliorees du degre de reflux.

Legal Status (Type, Date, Text)

Publication 20001221 A2 Without international search report and to be republished upon receipt of that report.

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## 22/5/24 (Item 24 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00737127 \*\*Image available\*\* METHODS AND DEVICES FOR OCCLUDING A VESSEL AND PERFORMING DIFFERENTIAL PERFUSION ET DISPOSITIFS D'OCCLUSION D'UN VAISSEAU ET DE METHODES DIFFERENTIELLE

Patent Applicant/Assignee:

CARDEON CORPORATION, 10161 Bubb Road, Cupertino, CA 95014, US, US (Residence), US (Nationality)

Inventor(s):

ESCH Brady, 3349 Ensalmo Avenue, San Jose, CA 95118, US ROBINSON Janine, 101 Alameda Avenue, Half Moon Bay, CA 94019, US MACOVIAK John, 5412 Thunderbird Lane, La Jolla, CA 92037, US SAMSON Wilfred, 19639 Farwell Avenue, Saratoga, CA 95070, US OLSEN Eric, 110 Oak Rim Court, Los Gatos, CA 95032, US Legal Representative:

HANKE Gunther, 200 Oceangate, Suite 1550, Long Beach, CA 90802, US Patent and Priority Information (Country, Number, Date):

Patent: WO 200050114 A1 **20000831** (WO 0050114) Application: WO 2000US4264 20000218 (PCT/WO US0004264)

Priority Application: US 99256263 19990223

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61M-025/10

International Patent Class: A61B-017/12

Publication Language: English

Filing Language: English Fulltext Availability: Detailed Description

Claims

Fulltext Word Count: 11662

#### English Abstract

The present invention includes an apparatus and methods for differentially perfusing a patient undergoing cardiopulmonary bypass. A cardiopulmonary bypass machine is configured to provide hypothermic oxygenated blood and normothermic oxygenated blood to an aortic balloon catheter . The catheter has arch perfusion ports and corporeal perfusion ports and is introduced into a patient's aorta and navigated transluminally until the occlusion balloon is located in the descending aorta. The occlusion balloon is inflated and hypothermic oxygenated blood is **perfused** to the arch **vessels** while normothermic oxygenated blood is perfused to the corporeal circulation. This procedure offers the benefit of cerebral protection from embolic events during cardiopulmonary bypass surgery.

### French Abstract

La presente invention concerne un appareil et des methodes permettant la perfusion differentielle d'un patient place sous circulation extra-corporelle. Une machine de circulation extra-corporelle est configuree pour fournir du sang oxygene hypothermique et du sang oxygene normothermique a un catheter intra-aortique a ballonnet. On introduit ce catheter, qui comporte des orifices de perfusion dans la crosse et des orifices de perfusion corporelle, dans l'aorte du patient et on le deplace de maniere transluminale jusqu'a ce que le ballonnet d'occlusion soit positionne dans l'aorte descendante. Le ballonnet d'occlusion est alors gonfle et le sang oxygene hypothermique est injecte dans les vaisseaux aortiques tandis que le sang oxygene normothermique est injecte dans la circulation corporelle. Cette procedure offre l'avantage de proteger le cerveau contre des evenements emboliques au cours d'une intervention chirurgicale destinee a la mise en place d'une circulation extra-corporelle.

Legal Status (Type, Date, Text)

Publication 20000831 Al With international search report.

Publication 20000831 Al Before the expiration of the time limit for

amending the claims and to be republished in the

event of the receipt of amendments.

Examination 20010920 Request for preliminary examination prior to end of

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DIALOG(R) File 349: PCT FULLTEXT
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00736595
MULTICHANNEL CATHETER WITH OBTURATOR
 CATHETER A PLUSIEURS CANAUX ET A OBTURATEUR
Patent Applicant/Assignee:
  ENDOSCOPIC TECHNOLOGIES INC, Suite 100, 4115 Blackhawk Plaza Circle,
    Danville, CA 94506, US, US (Residence), US (Nationality), (For all
    designated states except: US)
Patent Applicant/Inventor:
  BERTOLERO Arthur A, 155 Sunhaven Road, Danville, CA 94506, US, US
    (Residence), US (Nationality), (Designated only for: US)
  BERTOLERO Raymond S, 130 Windover, Danville, CA 94506, US, US (Residence)
    , US (Nationality), (Designated only for: US )
  RIEBMAN Jerome B, 1291 Brookings Lane, Sunnyvale, CA 94087, US, US
    (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
  MORAN Tom M, Cooley Godward LLP, Five Palo Alto Square, 3000 El Camino
    Real, Palo Alto, CA 94306-2155, US
Patent and Priority Information (Country, Number, Date):
                        WO 200048659 A2 20000824 (WO 0048659)
  Patent:
                        WO 2000US4374 20000218 (PCT/WO US0004374)
  Application:
  Priority Application: US 99120038 19990219
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
  TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: A61M-025/10
Publication Language: English
Filing Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 19195
English Abstract
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This invention is a multichannel catheter for extracorporeal circulation of blood to a patient undergoing cardiovascular treatments or surgery. The catheter has three independent channels, an obturator and an expandable balloon at one end of the catheter . The first channel is the largest and is of a size that allows for delivery of blood through outlet parts in the wall of the first channel to a patient in an amount sufficient to maintain the patient's metabolism and perfusion throughout the treatment or surgery. The obturator is longitudinally insertable into the first channel. A second channel, smaller than the first, is integrated into the wall of the first channel, and is suitable for delivering a biologically active fluid (e.g., for cardioplegia) to the heart and/or venting the left heart. A third channel, also smaller than the first, is integrated into the wall of the first channel, and suitable for delivering a fluid to the balloon for its expansion when positioned in the ascending aorta to occlude the flow of blood to the heart. The catheter provides an improved means of preparing for or performing cardiovascular surgery on a patient using a cardiopulmonary machine for extracorporeal circulation of blood. The catheter is

particularly useful for cardiac surgery.

### French Abstract

L'invention concerne un catheter a plusieurs canaux, utilise pour la circulation extracorporelle du sang chez un patient subissant un traitement ou une operation cardio- vasculaire . Le catheter comporte trois canaux independants, un obturateur et un ballonnet gonflable a une extremite. Le premier canal est le plus grand et sa dimension lui permet d'amener le sang, par des orifices de sortie dans la paroi du premier canal, dans l'organisme d'un patient en une quantite suffisante pour maintenir le metabolisme du patient et l'irrigation sanguine durant tout le traitement ou toute l'intervention. L'obturateur peut etre introduit de maniere longitudinale dans le premier canal. Un deuxieme canal, plus petit que le premier, est integre dans la paroi du premier canal et sert a amener un fluide biologique actif (p.ex. dans le cas d'une cardioplegie) vers le coeur et/ou vider le coeur gauche. Un troisieme canal (38), egalement plus petit que le premier, est integre dans la paroi du premier canal, et sert a amener un fluide dans le ballonnet pour que celui-ci puisse se gonfler lorsqu'il est place dans l'aorte ascendante afin de bloquer l'ecoulement sanguin en direction du coeur. Le catheter de l'invention constitue un instrument ameliore qui permet de preparer ou d'effectuer une intervention cardio- vasculaire sur un patient au moyen d'une machine cardio-pulmonaire utilisee pour la circulation extracorporelle du sang. Ce catheter est particulierement utile lors d'operations du coeur.

Legal Status (Type, Date, Text)

20000824 A2 Without international search report and to be Publication republished upon receipt of that report.

20010125 Late publication of international search report Search Rpt 20010712 Request for preliminary examination prior to end of Examination 19th month from priority date

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(Item 26 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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00565683
FLUID DELIVERY APPARATUS AND METHODS
PROCEDES ET APPAREIL DE DISTRIBUTION DE FLUIDE
Patent Applicant/Assignee:
  CORVASCULAR INC,
  DUHAYLONGSOD Francis G,
  NARCISO Hugh Jr,
 MILLER John,
  PASPA Paul,
  IKI Kobi,
 MORALES Stephen,
Inventor(s):
  DUHAYLONGSOD Francis G,
  NARCISO Hugh Jr,
 MILLER John,
  PASPA Paul,
  IKI Kobi,
 MORALES Stephen,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 200029056 A2 20000525 (WO 0029056)
                        WO 99US27605 19991118 (PCT/WO US9927605)
  Application:
  Priority Application: US 98196636 19981119; US 99312201 19990514
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
  TM TR TT TZ UA UG US US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW
 AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC
  NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Main International Patent Class: A61M-025/00
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 30934
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## English Abstract

An infusion/guide catheter which is adapted to be introduced into a coronary ostium of a coronary artery of the heart of a patient through an opening in an aorta of the patient, preferably without the aid of fluoroscopic guidance, for delivery of a fluid, such as a cardioplegia solution, or passage of a catheter, into the coronary artery while still permitting blood perfusion from the aorta in to the ostium. Catheters adapted to be passed into a coronary vessel for delivery of a fluid, such as a cardioplegia solution. Preferably, the catheters can be placed without the use of fluoroscopy, although fluoroscopy may be optionally used under certain circumstances. In one embodiment, the infusion catheter generally comprises a tube having at least one lumen, a proximal end, and a distal end, the tube having at least one bend to facilitate placement of the distal end of the tube into the ostium of the coronary artery when the proximal end of the tube extends from the opening in the aorta, wherein the distal end of the tube is configured to fit within the coronary ostium while still permitting blood perfusion from the aorta into the ostium. The infusion catheter can be used as a system in conjunction with an intravascular catheter, an intraluminal shunt or similar drug delivery device which can be inserted directly into a coronary vessel, such as the right or left coronary artery or vein, following cardioplegia administration through the infusion catheter. The intravascular catheter, intraluminal shunt or similar drug delivery device can be used to deliver a fluid, such as a cardioplegia solution, more locally in the heart to enhance the efficiency of fluid or drug administration. Several embodiments include a light delivery portion capable of illuminating a distal end of the catheter for visualization thereof through the vasculature. A guidewire having a light delivery portion is also capable of illuminating a distal end of a catheter for placement of the catheter in a coronary vessel without the use of fluoroscopy.

#### French Abstract

L'invention concerne un catheter de quidage/infusion concu pour etre introduit dans l'ostium coronarien d'une artere coronaire du coeur d'un patient, par l'intermediaire d'une ouverture menagee dans l'aorte dudit patient, de preference sans l'aide d'un guidage fluoroscopique, permettant de distribuer un fluide, tel qu'une solution de cardioplegie, ou de faire passer un catheter dans l'artere coronaire tout en effectuant une perfusion sanguine de l'aorte dans l'ostium. Ces catheters sont concus pour etre introduits dans un vaisseau coronaire pour y distribuer un fluide, tel qu'une solution de cardioplegie. Le catheter est, de preference, introduit sans utiliser la fluoroscopie, bien qu'on puisse l'utiliser dans certaines circonstances. Selon un mode de realisation, le catheter d'infusion comprend generalement un tube pourvu d'au moins une lumiere, une extremite proximale, et une extremite distale, ledit tube possedant au moins une courbure afin de faciliter le placement de l'extremite distale du tube dans l'ostium de l'artere coronaire, lorsque l'extremite proximale du tube s'etend depuis l'ouverture dans l'aorte, l'extremite distale du tube etant configuree de maniere a correspondre a l'ostium coronarien, tout en effectuant une perfusion sanguine de l'aorte dans l'ostium. Le catheter d'infusion peut etre utilise dans un systeme avec un catheter intravasculaire, un dispositif de pontage intraluminal ou un dispositif de distribution de medicaments similaire pouvant etre directement introduit dans un vaisseau coronaire, tel que l'artere coronaire gauche ou droite, une veine, apres une administration de cardioplegie par l'intermediaire du catheter d'infusion. Le catheter intravasculaire, le dispositif de pontage intraluminal ou le dispositif de distribution de medicaments similaire peuvent etre utilises pour distribuer un fluide, tel qu'une solution de cardioplegie, plus localement dans le coeur afin d'ameliorer l'efficacite ou l'administration d'un fluide ou d'un medicament. Plusieurs modes de realisation, comprennent une partie de distribution de lumiere capable d'eclairer une extremite distale du catheter afin de visualiser ledit catheter dans le systeme vasculaire. Un fil de guidage pourvu d'une partie de distribution de lumiere peut egalement eclairer une extremite distale d'un catheter afin de placer ledit catheter dans un vaisseau coronaire sans recours a la fluroscopie.

(Item 34 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. \*\*Image available\*\* AORTIC CATHETER AND METHODS FOR INDUCING CARDIOPLEGIC ARREST AND FOR SELECTIVE AORTIC PERFUSION CATHETER AORTIQUE ET PROCEDES POUR L'INDUCTION D'UN ARRET PAR CARDIOPLEGIE ET POUR PERMETTRE UNE PERFUSION AORTIQUE SELECTIVE Patent Applicant/Assignee: CARDEON CORPORATION, Inventor(s): BRESNAHAN John F, MACOVIAK John A, SAMSON Wilfred J, BAKER Steve G, VAN DYK Karl, Patent and Priority Information (Country, Number, Date): WO 9929363 A1 19990617 Patent: WO 98US25846 19981204 (PCT/WO US9825846) Application: Priority Application: US 9767945 19971208 Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG Main International Patent Class: A61M-025/10 International Patent Class: A61B-017/12 Publication Language: English Fulltext Availability: Detailed Description

## English Abstract

Fulltext Word Count: 11784

Claims

The present invention provides an aortic catheter having an upstream occlusion member positioned in the ascending aorta between the coronary arteries and the brachiocephalic artery0 and a downstream anchoring member positioned in the descending aorta, downstream of the aortic arch. The upstream occlusion member may be an inflatable balloon or a selectively deployable external catheter valve. The downstream anchoring member may be a larger inflatable balloon or other anchoring structure that provides sufficient friction to prevent migration of the balloon catheter in the upstream or downstream direction. In addition, an arch perfusion lumen, a corporeal perfusion lumen and a cardioplegia lumen are provided for performing selective perfusion and cardioplegic arrest.

# French Abstract

L'invention concerne un catheter aortique ayant un element d'occlusion d'amont positionne dans l'aorte descendante, entre les arteres coronaires et l'artere brachiocephalique, et un element d'ancrage d'aval positionne dans l'aorte descendante, en aval de la crosse aortique. L'element d'occlusion d'amont peut etre un ballonnet gonflable ou une valve de catheter externe a deploiement selectif. L'element d'ancrage d'aval peut etre un ballonnet gonflable plus grand ou une autre structure d'ancrage produisant suffisamment de frottement pour empecher la migration du catheter a ballonnet vers l'aval ou vers l'amont. De plus, une lumiere de perfusion dans la crosse, une lumiere de perfusion corporelle et

une lumiere de cardioplegie sont prevues pour permettre la **perfusion** selective et l'arret par cardioplegie.

# (Item 36 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. \*\*Image available\*\* MAIN STAGE CATHETERIZATION INSTRUMENT INSTRUMENT DE CATHETERISATION DE PHASE PRINCIPALE Patent Applicant/Assignee: CARDEON CORPORATION, MACOVIAK John A, SAMSON Wilfred J, Inventor(s): MACOVIAK John A, SAMSON Wilfred J, Patent and Priority Information (Country, Number, Date): WO 9915227 A1 **19990401** Patent: Application: WO 98US20165 19980924 (PCT/WO US9820165) Priority Application: US 9760127 19970926 Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG Main International Patent Class: A61M-029/02 Publication Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 14197

#### English Abstract

The present invention discloses a main stage catheter instrument which serves as the primary catheterization access and arterial perfusion cannula for establishing cardiopulmonary bypass with selective perfusion and differential flow management of the cardiovascular, cardioneural and corporeal sub-circulations of a patient. The main stage catheter has a catheter shaft with a first occlusion member for occluding the thoracic descending aorta and an optional second occlusion member for occluding the abdominal descending aorta. A perfusion in the main stage catheter supplies oxygenated blood to the aorta through distal, medial and proximal perfusion ports. Optionally, a inserted through the main stage catheter may . second stage catheter be used to occlude the ascending aorta and to deliver a cardioplegic agent to the coronary arteries . The main stage catheter is coupled to a cardiopulmonary bypass system and a venous drainage catheter to establish partial or full cardiopulmonary bypass with elective cardioplegic arrest.

## French Abstract

Cette invention se rapporte a un instrument a catheter de phase chirurgicale principale, qui sert de canule primaire de perfusion arterielle et d'acces de catheterisation, en vue d'etablir une derivation cardio-pulmonaire avec gestion de flux differentiel et d'injection selective des sous- systemes de circulation sanguine cardio-vasculaire, cardio-neurale et corporelle d'un patient. Ce catheter de phase principale comprend une tige de catheter ayant un premier element d'occlusion servant a boucher l'aorte thoracique descendante et un second element d'occlusion optionnel servant a boucher l'aorte abdominale descendante. Un passage d'injection dans ce catheter de phase

principale fournit du sang oxygene a l'aorte par des orifices d'injection distal, intermediaire et proximal. Un catheter de phase secondaire, introduit dans le catheter de phase principale, peut eventuellement etre utilise pour boucher l'aorte ascendante et pour administrer un agent cardioplegique dans les arteres coronaires. Le catheter de phase principale est couple a un systeme de derivation cardio-pulmonaire et a un catheter de drainage veineux, en vue d'etablir une derivation cardio-pulmonaire partielle ou totale avec arret cardioplegique selectif.

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(Item 37 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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00483874
            **Image available**
INTRALUMINAL CATHETER WITH EXPANDABLE TUBULAR OPEN-WALLED ELEMENT
             INTRALUMINAL POURVU D'UN ELEMENT TUBULAIRE DEPLOYABLE A PAROI
CATHETER
    OUVERTE
Patent Applicant/Assignee:
  NAVIA Jose Antonio,
  JORDANA Jorge Luis,
Inventor(s):
  NAVIA Jose Antonio,
  JORDANA Jorge Luis,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9915226 A1 19990401
 Application:
                        WO 98IB1460 19980921
                                             (PCT/WO IB9801460)
  Priority Application: US 97935783 19970923
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
 MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SÍ SK SL TJ TM TR TT UA UG UZ
 VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH
 CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW
 ML MR NE SN TD TG
Main International Patent Class: A61M-029/02
International Patent Class: A61B-017/12
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 6283
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# English Abstract

An intraluminal catheter having an expandable tubular open-walled element for immobilizing at least part of the catheter within a patient's body lumen , generally comprising an elongated shaft and a tubular open-walled element secured to the shaft, wherein the tubular open-walled element is at least in part expandable from an unexpanded diameter to a larger expanded diameter within the body lumen . The expanded diameter configuration is configured to contact a wall defining the body lumen and thereby releasably secure at least part of the catheter within the body lumen . A cannula member, used for delivering or removing fluids from the body lumen , can be positioned in one or more optimal perfusion locations within the body lumen during use, independent of the secured site. When occlusion of the axial flow is necessary, an optional occluding member may be reversibly deployed so that it expands inside and against the expanded tubular open-walled element. The optimal occlusion site can also be chosen independently of the secured site.

#### French Abstract

La presente invention concerne un catheter intraluminal pourvu d'un element tubulaire deployable a paroi ouverte destine a immobiliser au moins une partie du catheter a l'interieur de la lumiere anatomique du patient. Ce catheter comprend une tige de forme allongee et un element tubulaire a paroi ouverte, fixe a la tige. Cet element tubulaire est capable de se deployer, au moins partiellement d'un diametre non deploye en un diametre deploye plus grand a l'interieur de la lumiere anatomique. La configuration a diametre deploye est agencee de facon a etablir un contact avec une paroi definissant la lumiere anatomique et partant a

fixer de facon liberable au moins une partie du **catheter** dans la lumiere anatomique. Une canule, servant a administrer ou eliminer des fluides de la lumiere anatomique, peut etre disposee en un ou plusieurs points de **perfusion** optimale a l'interieur de la lumiere anatomique pendant l'utilisation, quel que soit le site de fixation. Des que l'occlusion du flux axial devient necessaire, on a la possibilite de deployer de facon reversible un organe d'occlusion facultatif de facon qu'il se deploie de facon reversible contre et a l'interieur de l'element tubulaire deploye a paroi ouverte. Il est egalement possible de choisir le site d'occlusion independamment du site de fixation.

(Item 40 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00457094 \*\*Image available\*\* ANTEGRADE CARDIOPLEGIA CATHETER AND METHOD CATHETER DESTINE A PROVOQUER UNE CARDIOPLEGIE ANTEROGRADE ET TECHNIQUE AFFERENTE Patent Applicant/Assignee: HEARTPORT INC, Inventor(s): ST GOAR Frederick G, STEVENS John H, GIFFORD Hanson S III, GRIFFITH Bartley P,

Patent and Priority Information (Country, Number, Date):

WO 9847558 A1 19981029 Patent:

WO 98US8174 19980422 Application: (PCT/WO US9808174)

Priority Application: US 97839189 19970423

Designated States: AU CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL

Main International Patent Class: A61M-029/00

Publication Language: English

Fulltext Availability: Detailed Description

Claims

Fulltext Word Count: 11486

#### English Abstract

A cardioplegia catheter (20) is configured to extend into the ascending aorta with a proximal portion of the shaft (26) extending into a left chamber of the heart through the aortic valve, and out of the heart through a penetration in a wall thereof. The cardioplegia catheter has an occlusion member (28) thereof. The cardioplegia catheter has an occlusion member (28) configured to occlude the ascending aorta between the brachycephalic artery, and the coronary ostia. An arterial return cannula delivers oxygenated blood to the arterial system downstream of the occlusion member, while cardioplegia fluid is delivered through a lumen in the cardioplegia catheter (20) upstream of the occlusion member to induce cardioplegia arrest.

#### French Abstract

Ce catheter (20) destine a provoquer une cardioplegie est concu pour se deployer dans l'aorte descendante, une partie proximale de la tige (26) se deployant dans une cavite gauche du coeur par la valvule sigmoide et sortant du coeur par une perforation pratiquee dans une paroi cardiaque. Ce catheter possede un element d'occlusion (28) destine a obturer l'aorte descendante entre l'artere brachycephale et les orifices coronaires. Une canule arterielle de retour alimente en sang oxygene le systeme arteriel, en aval de l'element d'occlusion, tandis qu'un fluide a cardioplegie est administre par le biais d'une lumiere situee dans le catheter (20) et ce, en amont de l'element d'occlusion afin de provoquer cette cardioplegie.

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(Item 43 from file: 349)
22/5/43
DIALOG(R) File 349: PCT FULLTEXT
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            **Image available**
RETROGRADE - ANTEGRADE
                          CATHETERIZATION
                                            GUIDE
                                                    WIRE
FIL DE GUIDAGE DE CATHETERISME
                                  RETROGRADE -ANTEROGRADE
Patent Applicant/Assignee:
 COOK INCORPORATED,
  COPE Constantin,
  GRIFFIN Mark A,
Inventor(s):
  COPE Constantin,
  GRIFFIN Mark A,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9805376 Al 19980212
                        WO 97US13511 19970731 (PCT/WO US9713511)
 Application:
  Priority Application: US 96692568 19960806
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN
 MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU
  ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES
  FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD
 TG
Main International Patent Class: A61M-025/09
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 7257
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## English Abstract

An catheterization apparatus (10) for reversing the retrograde or antegrade direction of catheterization includes a guide wire (12) foldable upon itself for partial introduction into a vessel (68) of a patient. The quide wire (12) first includes a resilient, elongated member (14) having a curved end (16) and a remainder (17) having a second, bent end (18). The quide wire (12) also includes a flexible tether (22) connected to the tip (20) of the curved end (16) of the elongated member (14). The elongated member (14) is preferably formed from a wire core or mandrel (24) covered by a continuous coiled wire (30). The catheterization apparatus (10) preferably further includes a catheter through which the guide wire (12) is introduced into the (68). The catheter can be of conventional construction and operability. Preferably, however, the catheter is a highly flexible and relatively short intermediary catheter (56), employed only temporarily during use of the retrograde - antegrade guide wire (12). The catheterization apparatus (10) can also include an inserter sheath (60) engageable with the catheter (56) to facilitate passage of the wire (12) through the catheter (56). The apparatus (10) is particularly advantageous in that its use avoids the need to establish a second access site. Moreover, the apparatus (10) is relatively simple and reliable in construction and use, and is relatively low in cost, at least in comparison to the costs and risks of the establishment of a second access site. The apparatus (10) is a traumatic during use, that is, it does not significantly damage the blood vessel or other vessel during reversal of the direction of catheterization . The apparatus (10) is useful in vessels of both large and small diameters, and facilitates the selective engagement of a catheter with a bifurcation branch in a vessel .

#### French Abstract

Ce dispositif de catheterisme (10), destine a inverser la direction retrograde ou anterograde du catheterisme , comprend un fil de guidage (12) pliable sur lui-meme, aux fins d'introduction partielle dans un vaisseau (68) d'un patient. Ce fil (12) comporte un element flexible et de forme allongee (14) presentant une extremite courbe (16), le reste (17) du fil presentant une seconde extremite (18) pliee. Ce fil (12) comporte egalement un cable de fixation (22) relie au bout (20) de l'extremite courbe (16). L'element de forme allongee (14) est, de preference, forme a partir d'une ame ou mandrin (24) recouvert d'un fil continu enroule (30). De preference, ce dispositif de catheterisme (10) comprend encore un catheter a travers lequel on introduit le fil de quidage (12) dans le vaisseau (68). Ce catheter peut etre de conception et maniabilite classiques, toutefois, on prefere qu'il soit un catheter (56) intermediaire relativement court et tres flexible, employe seulement temporairement pendant l'utilisation du fil de guidage retrograde -anterograde (12). Le dispositif de catheterisme (10) peut encore comporter une gaine d'insertion (60) pouvant etre introduite avec le catheter (56) afin de faciliter le passage du fil de guidage a travers le catheter (56). Ce dispositif (10) est particulierement avantageux en ce que son utilisation supprime le besoin d'etablir un second site d'acces. En outre, ce dispositif (10) est relativement simple a construire et fiable dans son maniement, son cout est relativement bas, au moins par rapport aux couts et risques de l'etablissement d'un second site d'acces, son utilisation est atraumatique, c'est-a-dire qu'il n'endommage pas de maniere importante le vaisseau sanguin ou tout autre vaisseau lors de l'inversion de la direction du catheterisme , il est utile dans des vaisseaux a grand et petit diametre et il facilite l'introduction selective, dans un vaisseau, d'un catheter presentant une branche de bifurcation.

(Item 45 from file: 349) 22/5/45 DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. \*\*Image available\*\* A DEVICE, SYSTEM AND METHOD FOR INTERSTITIAL TRANSVASCULAR INTERVENTION DISPOSITIF, SYSTEME ET PROCEDE D'INTERVENTION TRANSVASCULAIRE INTERSTITIELLE Patent Applicant/Assignee: TRANSVASCULAR INC, MAKOWER Joshua, Inventor(s): MAKOWER Joshua, Patent and Priority Information (Country, Number, Date): Patent: WO 9727897 A1 19970807 Application: WO 97US1459 19970131 (PCT/WO US9701459) Priority Application: US 9610614 19960202 Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE'IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG Main International Patent Class: A61M-029/00 Publication Language: English Fulltext Availability: Detailed Description

# English Abstract

Fulltext Word Count: 13750

Claims

This invention is devices, systems and methods for trans- vascular interstitial interventions, including trans- vascular, catheter based vascular bypass, transmyocardial re- vascularization, bypass grafting of blood vessels, and interstitial surgical/interventional procedures wherein a catheter is advanced trans- lumenal through the vasculature (2) to a desired location (OB) and an operative instrument (5) is passed through the wall (2) of a blood vessel (2) and to a target location (3) (e. g., another blood vessel, an organ, a tumor, another anatomical structure) such that one or more operative devices may be advanced to the target location to perform the desired operative or interventional procedure.

## French Abstract

Dispositifs, systemes et procedes pour interventions interstitielles transvasculaires, qui incluent le pontage vasculaire transvasculaire utilisant un catheter, la revascularisation transmyocardique, le pontage par greffe de vaisseaux sanguins, et les interventions/operations chirurgicales interstitielles dans lesquelles un catheter est introduit de maniere transluminale dans le systeme vasculaire (2) jusqu'a un site desire (OB) et un instrument operatoire (5) est introduit par la paroi (2) d'un vaisseau sanguin (2) jusqu'a un site cible (3) (par ex. un autre vaisseau sanguin, un organe, une tumeur, une autre structure anatomique) de maniere a ce qu'un ou plusieurs dispositifs operatoires puissent etre achemines jusqu'au site cible pour effectuer l'intervention ou l'operation desiree.

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(Item 48 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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00357833
            **Image available**
ENDOVASCULAR SYSTEM FOR ARRESTING THE HEART
SYSTEME ENDOVASCULAIRE D'ARRET DU COEUR
Patent Applicant/Assignee:
  HEARTPORT INC,
Inventor(s):
  VALLEY Kirsten L,
  SNOW David W,
  CORVI Timothy C,
  DONLON Brian S,
  BOYD Stephen W,
  FAN Sylvia W,
  ROTH Alex T,
  PETERS William S,
 MUELLER Richard J Jr,
  GIFFORD Hanson S III,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9640347 Al 19961219
                                              (PCT/WO US9608078)
  Application:
                        WO 96US8078 19960530
  Priority Application: US 95486216 19950607
Designated States: AU CA JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT
  SE
Main International Patent Class: A61M-029/00
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 23018
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## English Abstract

Devices and methods are provided for temporarily inducing cardio-plegia arrest in the heart of a patient, and for establishing cardiopulmonary bypass in order to facilitate surgical procedures onthe heart and its related blood vessels. Specifically, a catheterbased system is provided for isolating the heart and coronary blood vessels of a patient from the remainder of the arterial system(850), and for infusing a cardio-plegia agent into the patient's coronary arteries to induce cardio-plegia arrest in the heart. The system includes an endo-aortic partitioning catheter (10) having an expandable balloon (11, 161) at its distal end, which is expanded within the ascending aorta (12, 157) to occlude the aortic lumen between the coronary ostia and the brachio-cephalic artery. Means for centering the catheter tip (330) within the ascending aorta include specially curved shaft configurations (1600), eccentric (710) or shaped (792) occlusion balloons (161, 350), and a steerable catheter tip (145) which may be used separately or in combination. The shaft of the catheter may have a coaxial (106) or multilumen (602) construction.

## French Abstract

L'invention concerne des dispositifs et des procedes servant a provoquer un arret cardioplegique temporaire du coeur d'un patient et a creer une derivation cardio-pulmonaire, de maniere a faciliter les interventions chirurgicales pratiquees sur le coeur et sur ses vaisseaux sanguins. Un systeme a base de catheters sert a isoler le coeur et les vaisseaux sanguins coronaires d'un patient du reste du systeme arteriel (850), ainsi qu'a introduire par perfusion un agent cardioplegique dans les arteres coronaires, afin de provoquer un arret cardioplegique du coeur. Ce systeme comprend un catheter de separation endoaortique (10), dont

l'extremite distale est pourvue d'un ballonnet (11) (161) dilate a l'interieur de l'aorte montante (12) (157), de maniere a obturer la lumiere aortique entre les orifices coronaires et l'artere brachiocephalique. Des moyens servant a centrer la pointe (330) du catheter a l'interieur de l'aorte montante possedent des configurations de tige a incurvations speciales (1600), des ballonnets d'occlusion (161) (350) excentriques (710) ou a forme adaptee (792) et une pointe de catheter orientable (145) qu'on peut utiliser separement ou dans une combinaison. La tige du catheter peut presenter une conception coaxiale (106) ou a lumieres multiples (602).

22/5/49 (Item 49 from file: 349) DIALOG(R) File 349:PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. \*\*Image available\*\* SYSTEM AND METHODS FOR PERFORMING ENDOVASCULAR PROCEDURES SYSTEME ET PROCEDES POUR EFFECTUER DES ACTES ENDOVASCULAIRES Patent Applicant/Assignee: HEARTPORT INC, Inventor(s): STEVENS John H, PETERS William S, STERMAN Wesley D, GIFFORD Hansen S III, Patent and Priority Information (Country, Number, Date): Patent: WO 9630072 A1 19961003 Application: WO 96US3266 19960311 (PCT/WO US9603266) Priority Application: US 95415366 19950330 Designated States: AU CA JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE Main International Patent Class: A61M-029/00 Publication Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 18148

### English Abstract

This invention is a system for inducing cardio-plegia arrest and performing an endovascular procedure within the heart or blood vessels of a patient. An endo-aortic partitioning catheter (10) has an inflatable balloon (11) which occludes the ascending aorta (12) when inflated. Cardio-plegia fluid may be infused through a lumen of the endo-aortic partitioning catheter (39) to stop the heart while the patient's circulatory system is supported on cardiopulmonary bypass. One or more endovascular devices (500) are introduced through an internal lumen (40) of the endo-aortic partitioning catheter (30) to perform a diagnostic or therapeutic endovascular procedure within the heart or blood vessels of the patient. Surgical procedures such as coronary artery bypass surgery or heart valve replacement may be performed in conjunction with the endovascular procedure while the heart is stopped. Embodiments of the system are described for performing, e.g., fiberoptic angioscopy of structures within the heart and its blood vessels, and valvuloplasty for correction of valvular stenosis.

# French Abstract

Cette invention concerne un systeme pour provoquer une cardioplegie et pour effectuer un acte endovasculaire au niveau du coeur ou des vaisseaux sanguins d'un patient. Un catheter (10) d'isolement aortique comprend un ballonnet gonflable (11) qui bloque l'aorte ascendante (12) quand il est gonfle. Le fluide pour provoquer une cardioplegie peut etre injecte par la lumiere du catheter d'isolement endo-aortique (39) pour arreter le coeur pendant que le systeme circulatoire du patient est pris en charge par une derivation cardiopulmonaire. Un ou plusieurs dispositifs endovasculaires (500) sont introduits par la lumiere interieure (40) du catheter d'isolement endo-aortique (30) pour effectuer un acte endovasculaire diagnostique ou therapeutique dans le coeur ou les vaisseaux sanguins du patient. Des operations chirurgicales telles que des operations de pontage sur les arteres coronaires ou le remplacement de valvules pendant l'acte endovasculaire peuvent etre effectuees pendant que le coeur est arrete. Des formes d'execution sont decrites pour

effectuer une angioscopie par fibre optique de structures a l'interieur du coeur et de ses vaisseaux et une valvuloplastie pour corriger une stenose valvulaire.

(Item 50 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00338977 \*\*Image available\*\* DELIVERY CATHETER AND METHOD FOR INDUCING CARDIOPLEGIC RETROGRADE ARREST D'ADMINISTRATION PAR VOIE RETROGRADE ET PROCEDE POUR INDUIRE CATHETER UNE CARDIOPLEGIE Patent Applicant/Assignee: HEARTPORT INC, Inventor(s): BOYD Stephen W, STEVENS John H, EVARD Philip C, ADAMS Craig L, Patent and Priority Information (Country, Number, Date): WO 9621489 A1 **19960718** Patent: WO 95US16169 19951208 (PCT/WO US9516169) Priority Application: US 95372741 19950112 Designated States: AU CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE Main International Patent Class: A61M-029/00 Publication Language: English Fulltext Availability: Detailed Description Claims Fulltext Word Count: 12157

# English Abstract

A retrograde delivery catheter (10) includes at its distal end a balloon (11) configured to occlude the coronary sinus (21) of a patient's heart, and has a length and flexibility which allow the distal end to be positioned in the coronary sinus (21) with the proximal end extending trans-luminal to a peripheral vein such as an internal jugular vein (44) and out of the body through a puncture (24) therein. The delivery catheter (20) has a delivey lumen (128) extending between its proximal and distal ends which is configured to allow a cardioplegia fluid to be delivered at a flow rate of at least 200 ml/min with a pump pressure less than 300 mm Hg, thereby allowing cardioplegia arrest to be maintained using a blood cardioplegia fluid without causing excessive hemolysis. In a method of inducing cardioplegia arrest according to the invention, the patient is placed on cardiopulmonary bypass (18), the coronary arteries (50, 51) are isolated from remainder of the arterial system , and the delivery catheter (10) is positioned trans-luminal in the coronary sinus (21) from a peripheral vein .

### French Abstract

Catheter (10) d'administration par voie retrograde ayant a son extremite distale un ballonnet (11) configure de facon a occlure le sinus coronaire (21) du coeur d'un patient, et dont la longueur et la souplesse permettent de positionner l'extremite distale dans le sinus coronaire (21), l'extremite proximale s'etendant de maniere transluminale jusqu'a une veine peripherique telle que la veine jugulaire interne (44), et hors du corps par une ponction (24) pratiquee dans ce dernier. Le catheter d'administration (20) presente une lumiere d'administration (128) qui s'etend entre ses extremites proximale et distale, lumiere configuree de facon a permettre l'administration d'un liquide de cardioplegie a un debit d'au moins 200 ml/min avec une pression de refoulement de pompe inferieure a 300 mm Hg, ce qui permet le maintien de la cardioplegie a l'aide d'un liquide sanguin de cardioplegie sans

provoquer une hemolyse excessive. Dans un procede d'induction de la cardioplegie selon l'invention, le patient est place en circulation extra-corporelle (18), les arteres coronaires (50, 51) sont isolees du reste du systeme arteriel et le catheter d'administration (10) est dispose de facon transluminale dans le sinus coronaire (21) a partir d'une veine peripherique.

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22/5/52
            (Item 52 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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            **Image available**
00314603
 BALLOON
           CATHETER
 CATHETER A BALLONNET
Patent Applicant/Assignee:
  MEDTRONIC INC,
  DEVRIES James H,
  MARCADIS Stuart J,
Inventor(s):
  DEVRIES James H,
  MARCADIS Stuart J,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9532756 Al 19951207
  Application:
                        WO 95US6753 19950526 (PCT/WO US9506753)
  Priority Application: US 94250863 19940527
Designated States: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU
  IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD
  SE SG SI SK TJ TM TT UA UG US UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR
  GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: A61M-025/04
International Patent Class: A61M-25:10; A61B-17:22
Publication Language: English
Fulltext Availability:
  Detailed Description
  Claims
Fulltext Word Count: 7240
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# English Abstract

A catheter for retrograde perfusion of the heart through the coronary sinus, having an infusion lumen for introducing perfusion liquid into the heart, a retention means such as an inflatable balloon, and optionally having retention enhancements such as spikes, felt or a hydrophilic coating, on the surface of the retention means to keep it firmly in place.

# French Abstract

La presente invention concerne un catheter destine a la perfusion retrograde du coeur par le sinus coronaire. Ce catheter est caracterise par une lumiere permettant l'introduction du liquide de perfusion dans le coeur, par un organe de retenue tel qu'un ballonnet gonflable, et de facon facultative par des accessoires ameliorant la retenue tels que des epis, du feutre ou un revetement hydrophile, ces accessoires etant disposes sur la surface des organes de retenue pour les maintenir bien en place.

22/5/53 (Item 53 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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#### 00314592

A CATHETER SYSTEM AND METHOD FOR PROVIDING CARDIOPULMONARY BYPASS PUMP SUPPORT DURING HEART SURGERY

CATHETER ET PROCEDE DESTINES A APPORTER UN SUPPORT VITAL A L'AIDE D'UNE POMPE DE CIRCULATION EXTRA-CORPORELLE, LORS D'UNE CHIRURGIE DU COEUR

Patent Applicant/Assignee: SWEEZER William P,

Inventor(s):

SWEEZER William P,

JIMISON James,

COLEMAN Ronald L,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9532745 A1 19951207

Application: WO 95US6796 19950526 (PCT/WO US9506796)

Priority Application: US 94721 19940527

Designated States: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE SI SK TJ TT UA UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU

MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A61M-001/10

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 28419

#### English Abstract

A catheter system and method for achieving total cardiopulmonary bypass during heart surgery. The venous perfusion catheter has first and second balloons occluding the inferior and superior vena cava thereby precluding blood flow into the right atrium. An arterial perfusion catheter is inserted, advanced and positioned in the ascending aorta cephalid of the junction of the conorary arteries with the aortic root. A second flexible arterial cannula is mounted in sliding relationship with the first flexible cannula and carries an inflatable balloon adjacent its distal end to provide for occlusion of the ascending aorta. A first flexible cannula has a first lumen and an arterial venting orifice communicating with the first lumen defining a single flow path for the passage of cardioplegia solution to arrest the heart or for the evacuation of blood from the aortic root. A third lumen extends axially through the first flexible arterial cannula and communicates with a multiplicity of openings in the distal tip for suctioning blood from the left ventricle. The second flexible cannula of the arterial perfusion catheter has a first cavity extending axially therethrough that communicates with an opening at its distal tip to permit the passage of blood delivered by the cardiopulmonary bypass pump into arterial circulation. Both the venous and arterial perfusion catheters have a plurality of radially and oppositely spaced steering lumens and a plurality of steering cables fixed to the distal ends to achieve omnidirectional articulation.

# French Abstract

L'invention concerne un catheter ainsi qu'un procede destines a effectuer une circulation extra-corporelle complete lors d'une chirurgie du coeur. Le catheter de perfusion veineuse possede des premier et second ballonnets servant a occlure la veine cave inferieure et superieure, empechant ainsi le sang de circuler dans l'oreillette droite. On insere, on fait avancer et on place un catheter de perfusion arterielle dans le

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tronc cephalique de l'aorte acendante au niveau de la jonction des arteres coronaires avec l'extremite inferieure de la crosse de l'aorte. Une seconde canule arterielle flexible est montee coulissante par rapport a une premiere canule flexible et elle comporte un ballonnet gonflable situe au voisinage de son extremite distale permettant l'occlusion de l'aorte ascendante. La premiere canule flexible presente une premiere lumiere ainsi qu'un orifice de purge arteriel communiquant avec cette premiere lumiere et definissant un trajet unique de circulation permettant soit le passage de la solution de cardioplegie destinee a arreter le coeur, soit d'evacuer le sang provenant de l'extremite inferieure de la crosse de l'aorte. Une troisieme lumiere s'etend axialement a travers cette premiere canule et communique avec une multiplicite d'ouvertures pratiquees dans l'extremite distale de celle-ci, lesquelles sont destinees a aspirer le sang provenant du ventricule gauche. La seconde canule flexible du catheter de perfusion arterielle presente une premiere cavite qui s'etend axialement a travers cette canule et communique avec une ouverture situee au niveau de l'embout distal de celle-ci afin de permettre au sang amene par la pompe de circulation extra-corporelle de passer dans la circulation arterielle. A la fois le catheter de perfusion veineuse et celui de perfusion arterielle possedent une pluralite de lumieres de guidage espacees radialement et de facon opposee, ainsi qu'une pluralite de cables de quidage fixes sur leurs extremites distales afin de permettre une articulation omnidirectionnelle.

22/5/54 (Item 54 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00163770

RETROGRADE VENOUS CARDIOPLEGIA CATHETERS AND METHODS OF USE AND MANUFACTURE CATHETERS DE CARDIOPLEGIE VENEUSE RETROGRADE ET PROCEDES D'UTILISATION ET DE FABRICATION

Patent Applicant/Assignee:

RESEARCH MEDICAL INC,

Inventor(s):

BUCKBERG Gerald D,

TODD Robert J,

Patent and Priority Information (Country, Number, Date):

Patent: WO 8910155 A1 19891102

Application: WO 89US1770 19890427 (PCT/WO US8901770)

Priority Application: US 88230 19880428

Designated States: AT AU BE CH DE DK FR GB IT JP LU NL NO SE

Main International Patent Class: A61M-025/00

Publication Language: English

Fulltext Availability:
Detailed Description

Claims

Fulltext Word Count: 13657

English Abstract

This invention relates to a retrograde cardioplegia catheter (10) and its method of use. The catheter contains two lumens, an infusion lumen (18) through which the cardioplegic solution flows and a pressure sensing lumen (20) for monitoring the fluid pressure at the point where the solution exits the catheter. A slightly tapered, self-filling balloon (22) is secured to the distal end of the catheter (10). Also, located at the distal end of the catheter is a soft, rounded tip (14) to prevent damage to the sensitive intimal tissues of the coronary sinus (50). A stylet (36) having a handle (38) at one end and a predetermined curve at the other end enables the cardioplegia catheter (10) to be inserted quickly and accurately within the coronary sinus (50) through a very small incision made in the right atrium. After the catheter is secured in place, the stylet is withdrawn.

# French Abstract

Cette invention concerne un catheter de cardioplegie retrograde (10) et son procede d'utilisation. Le catheter presente deux passages, un passage de perfusion (18) au travers duquel s'ecoule la solution cardioplegique et un passage de detection de pression (20) pour controler la pression du fluide au point ou la solution sort du catheter. Un ballon legerement conique a auto-remplissage (22) est fixe a l'extremite distale du catheter (10). De meme, une pointe arrondie et douce (14) est fixee a l'extremite distale du catheter pour empecher d'endommager les tissus sensibles du sinus coronaire (50). Un stylet (36) ayant une poignee (38) a une extremite et une courbure predeterminee a l'autre extremite permet d'introduire de maniere precise et rapide le catheter de cardioplegie (10) dans le sinus coronaire (50) au travers d'une tres petite incision pratiquee dans l'orifice de l'oreillette droite. Apres avoir fixe le catheter, le stylet est enleve.

Set Items Description

S1 3 AU=(GERSHOWITZ A? OR GERSHOWITZ, A? OR GERSHOWITZ A OR GERSHOWITZ A. OR GERSHOWITZ, A. OR GERSHOWITZ A.D. OR GERSHOWITZ, A.D. OR GERSHOWITZ, A.D. OR -

GERSHOWITZ ARTHUR OR GERSHOWITZ, ARTHUR)

S2 32822 CANNULA? OR CATHETER? OR CANULA?

S3 3 S1 AND S2

? show files

File 347: JAPIO Oct 1976-2003/Aug (Updated 031202)

(c) 2003 JPO & JAPIO

File 350: Derwent WPIX 1963-2003/UD, UM &UP=200379

(c) 2003 Thomson Derwent

3/3,K/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015704154 \*\*Image available\*\*
WPI Acc No: 2003-766347/200372

XRAM Acc No: C03-210551 XRPX Acc No: N03-613832

Retrograde cannula for delivering fluid to patient's vessel has sealing member having proximal and distal ends moved away from another to collapse the sealing member in response to axial sliding of inner body

Patent Assignee: GERSHOWITZ A D (GERS-I)

Inventor: GERSHOWITZ A D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20030163114 A1 20030828 US 200282074 A 20020226 200372 B

Priority Applications (No Type Date): US 200282074 A 20020226

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20030163114 A1 9 A61M-031/00

Retrograde cannula for delivering fluid to patient's vessel has sealing member having proximal and distal ends...

Inventor: GERSHOWITZ A D

Abstract (Basic):

- ... Retrograde cannula for delivering fluid to a patient's vessel has a sealing member disposed on a...
- ...sliding of an inner body within the outer body to reduce a profile of the  ${\tt cannula}$  .
- ... Retrograde cannula for delivering fluid to a patient's vessel comprises a body arrangement defining a longitudinal...
- $\dots$  sliding of the inner body within the outer body to reduce a profile of the  ${\tt cannula0}$  .
- ...An INDEPENDENT CLAIM is also included for a method of inserting a retrograde cannula into a vessel of a patient's body, which comprises axially sliding the inner body...
- ...one another for collapsing the sealing member to a smaller profile; inserting the reduced-profile **cannula** into the vessel; and axially sliding the inner body within the outer body in a...
- ... The retrograde cannula is used for delivering a fluid to a patient's vessel...
- ... The inventive retrograde cannula has a profile which can be appreciably reduced to facilitate the insertion and removal of the cannula, without having to install a plug within the infusion lumen...
- ... The figure is a longitudinal sectional view taken through a **cannula** with a sealing element on it in a non-collapsed state Technology Focus:
- ... the outer body. The sealing member is elastic and normally assumes an expanded state. The **cannula** includes holding mechanism for holding the inner and outer bodies in selected longitudinal

```
relationship.
... Title Terms: CANNULA ;
             (Item 2 from file: 350)
3/3, K/2
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
015574302
            **Image available**
WPI Acc No: 2003-636459/200360
XRPX Acc No: N03-506360
 Retrograde cannula for delivering fluid e.g. cardioplegia to patient's
 vessel, has expandable sealing member e.g. inflatable balloon set near
 cannula body distal end and selectively inflated to abut and seal vessel
Patent Assignee: GERSHOWITZ A D (GERS-I)
Inventor: GERSHOWITZ A D
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No
                             Applicat No
                                           Kind
                                                  Date
                                                           Week
             Kind
                     Date
US 20030163116 A1 20030828 US 200282119
                                             Α
                                                 20020226 200360 B
Priority Applications (No Type Date): US 200282119 A 20020226
Patent Details:
Patent No Kind Lan Pg
                       Main IPC Filing Notes
US 20030163116 A1
                     9 A61M-031/00
 Retrograde cannula for delivering fluid e.g. cardioplegia to patient's
 vessel, has expandable sealing member e.g. inflatable balloon set near
 cannula body distal end and selectively inflated to abut and seal vessel
 inner wall
Inventor: GERSHOWITZ A D
Abstract (Basic):
          The cannula (10) has a cannula body (12) which forms an
    infusion lumen (18), a stylet lumen (30), and a pressure...
...distal end. An expandable sealing member e.g. inflatable balloon (22) is
   set near the cannula body distal end and selectively inflated to abut
   and seal the vessel inner wall.
          The figure shows the sectional view of the retrograde cannula.
...Retrograde cannula (10...
... Cannula body (12
... Title Terms: CANNULA ;
3/3, K/3
             (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
015574301
             **Image available**
WPI Acc No: 2003-636458/200360
XRPX Acc No: N03-506359
 Retrograde cannula for delivering cardioplegia (CPG) to heart vessel,
 has valve arranged in cannula body and shifted between open and closed
```

positions for opening and closing passage arrangement to keep balloon in

# its inflated state

Patent Assignee: GERSHOWITZ A D (GERS-I)

Inventor: GERSHOWITZ A D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 20030163115 A1 20030828 US 200282098 A 20020226 200360 B

Priority Applications (No Type Date): US 200282098 A 20020226

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20030163115 A1 7 A61M-031/00

Retrograde cannula for delivering cardioplegia (CPG) to heart vessel, has valve arranged in cannula body and shifted between open and closed positions for opening and closing passage arrangement to...

Inventor: GERSHOWITZ A D

#### Abstract (Basic):

An automatically inflatable balloon extends around a **cannula** body adjacent to and spaced from a lumen outlet arrangement. A valve (34) arranged in the **cannula** body is shifted between open position to open a passage arrangement, and closed position for...

... The **cannula** body includes the passage arrangement for fluidly communicating the balloon with an infusion lumen (16...

...the heart vessel. The infusion lumen extending between the proximal and distal ends of the **cannula** body conducts pressurized fluid to the lumen outlet arrangement disposed adjacent the distal end. An...

 $\dots$ to volume. Enables balloon to stay inflated even when fluid is not being delivered through  $\ \ \,$  cannula  $\ \ \,$ 

...The figure shows the longitudinal cross-sectional view of the retrograde  ${f cannula}$  , with the valve in closed position

... Title Terms: CANNULA ;

. . .

Set Items Description

S1 0 AU=(GERSHOWITZ A? OR GERSHOWITZ, A? OR GERSHOWITZ A OR GERSHOWITZ, A OR GERSHOWITZ A. OR GERSHOWITZ A. OR GERSHOWITZ A. OR GERSHOWITZ, A.D. OR -

GERSHOWITZ ARTHUR OR GERSHOWITZ, ARTHUR)

S2 45269 CANNULA? OR CATHETER? OR CANULA?

? show files

File 348:EUROPEAN PATENTS 1978-2003/Nov W05

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031203,UT=20031127

(c) 2003 WIPO/Univentio

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S1
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                AU=(GERSHOWITZ A? OR GERSHOWITZ, A? OR GERSHOWITZ A OR GER-
             SHOWITZ, A OR GERSHOWITZ A. OR GERSHOWITZ, A. OR GERSHOWITZ AD
              OR GERSHOWITZ, AD OR GERSHOWITZ A.D. OR GERSHOWITZ, A.D. OR -
             GERSHOWITZ ARTHUR OR GERSHOWITZ, ARTHUR)
S2
       564207
                CANNULA? OR CATHETER? OR CANULA?
S3
            0
                S1 AND S2
? show files
File
       2:INSPEC 1969-2003/Nov W5
         (c) 2003 Institution of Electrical Engineers
File
       5:Biosis Previews(R) 1969-2003/Dec W1
         (c) 2003 BIOSIS
File
       6:NTIS 1964-2003/Dec W1
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
       8:Ei Compendex(R) 1970-2003/Nov W5
File
         (c) 2003 Elsevier Eng. Info. Inc.
      34:SciSearch(R) Cited Ref Sci 1990-2003/Nov W5
         (c) 2003 Inst for Sci Info
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
     73:EMBASE 1974-2003/Dec W1
         (c) 2003 Elsevier Science B.V.
File 155:MEDLINE(R) 1966-2003/Nov W4
         (c) format only 2003 The Dialog Corp.
File
      35:Dissertation Abs Online 1861-2003/Oct
         (c) 2003 ProQuest Info&Learning
      65:Inside Conferences 1993-2003/Dec W1
File
         (c) 2003 BLDSC all rts. reserv.
      71:ELSEVIER BIOBASE 1994-2003/Dec W1
File
         (c) 2003
                  Elsevier Science B.V.
File 144: Pascal 1973-2003/Nov W5
         (c) 2003 INIST/CNRS
      94:JICST-EPlus 1985-2003/Dec W1
File
         (c)2003 Japan Science and Tech Corp(JST)
      95:TEME-Technology & Management 1989-2003/Nov W4
         (c) 2003 FIZ TECHNIK
? pause
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Set Items Description

S1 0 AU=(GERSHOWITZ A? OR GERSHOWITZ, A? OR GERSHOWITZ A OR GERSHOWITZ, A OR GERSHOWITZ A. OR GERSHOWITZ, A. OR GERSHOWITZ AD OR GERSHOWITZ, AD OR GERSHOWITZ A.D. OR GERSHOWITZ, A.D. OR GERSHOWITZ ARTHUR OR GERSHOWITZ, ARTHUR)

52 56433 CANNULA? OR CATHETER? OR CANULA?

? show files

File 16:Gale Group PROMT(R) 1990-2003/Dec 10

(c) 2003 The Gale Group

File 160: Gale Group PROMT(R) 1972-1989

(c) 1999 The Gale Group

File 148:Gale Group Trade & Industry DB 1976-2003/Dec 11

(c) 2003 The Gale Group

File 621: Gale Group New Prod. Annou. (R) 1985-2003/Dec 11

(c) 2003 The Gale Group

File 444:New England Journal of Med. 1985-2003/Dec W2

(c) 2003 Mass. Med. Soc.

File 441:ESPICOM Pharm&Med DEVICE NEWS 2003/Dec W1

(c) 2003 ESPICOM Bus. Intell.

File 149:TGG Health&Wellness DB(SM) 1976-2003/Nov W3

(c) 2003 The Gale Group

File 98:General Sci Abs/Full-Text 1984-2003/Oct

(c) 2003 The HW Wilson Co.

File 135: NewsRx Weekly Reports 1995-2003/Nov W5

(c) 2003 NewsRx

File 369: New Scientist 1994-2003/Nov W5

(c) 2003 Reed Business Information Ltd.

File 370:Science 1996-1999/Jul W3

(c) 1999 AAAS

File 498:Detroit Free Press 1987-2003/Dec 09

(c) 2003 Detroit Free Press Inc.

File 724: (Minneapolis) Star Tribune 1989-1996/Feb 04

(c) 1996 Star Tribune

File 725: (Cleveland) Plain Dealer Aug 1991-2003/Dec 09

(c) 2003 The Plain Dealer

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Items
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Set
S1
       564361
                CANULA? OR CANNULA? OR CATHETER?
S2
        46598
                DC=(E01.370.370.380.410.200 OR E02.148.110 OR E5.135 OR E5-
             .140 OR E5.145 OR E2.620.135)
S3
        29411
                STYLET? OR GUIDEWIRE? OR GUIDE()WIRE? OR STIFFENER?
S4
         2633
                 (CURVEABLE OR CURVABLE OR MALLEABLE OR FLEXIBLE OR DEFORMA-
             BLE OR CURVATE OR BENDABLE) (2N) (WIRE? OR PROBE? OR NEEDLE? OR
             INTRODUCER? OR ADVANCER?)
S5
                METHOD? OR PROCEDURE?
     19137087
                SYSTEM? OR PROCESS?
S6
     32224514
S7
                INSERT? OR MANIPULAT?
      1195833
S8
      4986256
                REMOV? OR CONDUCT?
                DISCHARG? OR PERFUS? OR INFUS?
S9
      2108097
S10
      5410590
                VESSEL? OR VASCULA? OR VEIN? OR ARTERY? OR ARTERIE? OR BLO-
             ODVESSEL?
                 RETROGRADE? OR RETRO()GRADE? OR ANTIGRADE OR ANTEGRADE OR -
S11
       184670
              (ANTI OR ANTE)()GRADE OR CARDIOPL?GIA? OR RETROPL?GIA? OR (CA-
             RDIO OR RETRO) () PL?GIA?
S12
         6255
                 DC=(E04.100.376.374 OR D18)
S13
       273395
                BALLOON? OR INFLAT?
S14
      2008436
                LUMEN? OR INLET? OR OUTLET? OR PASSAGE? OR PORT?
S15
          196
                S1:S2 AND S3:S4 AND S5:S6 AND S7:S9 AND S10 AND S13 AND S14
S16
           18
                S15 AND S11
S17
           49
                S15 AND S7:S9(5N)S3:S4
                S15 AND S11:S12
S18
           18
S19
           23
                S17 AND S3:S4(5N)S14
S20
           11
                S17 AND S9(5N)S14
S21
           41
                S16 OR S18:S20
S22
           32
                S21 AND PY<2003
S23
           19
                RD (unique items)
? show files
       2:INSPEC 1969-2003/Dec W1
File
         (c) 2003 Institution of Electrical Engineers
File
       5:Biosis Previews(R) 1969-2003/Dec W1
         (c) 2003 BIOSIS
File
       6:NTIS 1964-2003/Dec W2
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
       8:Ei Compendex(R) 1970-2003/Nov W5
File
         (c) 2003 Elsevier Eng. Info. Inc.
      34:SciSearch(R) Cited Ref Sci 1990-2003/Dec W1
File
         (c) 2003 Inst for Sci Info
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
     73:EMBASE 1974-2003/Dec W1
File
         (c) 2003 Elsevier Science B.V.
File 155:MEDLINE(R) 1966-2003/Nov W4
         (c) format only 2003 The Dialog Corp.
File
      35:Dissertation Abs Online 1861-2003/Oct
         (c) 2003 ProQuest Info&Learning
File
      65:Inside Conferences 1993-2003/Dec W2
         (c) 2003 BLDSC all rts. reserv.
      71:ELSEVIER BIOBASE 1994-2003/Dec W2
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         (c) 2003 Elsevier Science B.V.
File 144: Pascal 1973-2003/Nov W5
         (c) 2003 INIST/CNRS
File
      94:JICST-EPlus 1985-2003/Dec W2
          (c) 2003 Japan Science and Tech Corp(JST)
File
      95:TEME-Technology & Management 1989-2003/Nov W5
         (c) 2003 FIZ TECHNIK
```

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23/3,K/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.

0014001771 BIOSIS NO.: 200200595282
Method of using a readily exchangeal
```

Method of using a readily exchangeable perfusion dilatation catheter AUTHOR: McInnes Peter R (Reprint); Sirhan Motasim M

AUTHOR ADDRESS: Surrey, UK\*\*UK

JOURNAL: Official Gazette of the United States Patent and Trademark Office Patents 1262 (3): Sep. 17, 2002 2002

MEDIUM: e-file

PATENT NUMBER: US 6451043 PATENT DATE GRANTED: September 17, 2002 20020917 PATENT CLASSIFICATION: 606-194 PATENT ASSIGNEE: Advanced Cardiovascular Systems , Inc. PATENT COUNTRY: USA

ISSN: 0098-1133 DOCUMENT TYPE: Patent RECORD TYPE: Abstract LANGUAGE: English

Method of using a readily exchangeable perfusion dilatation catheter 2002

PATENT ASSIGNEE: Advanced Cardiovascular Systems , Inc.

ABSTRACT: A perfusion -type dilatation catheter which can be rapidly exchanged for another catheter without the need for exchange wires or guidewire extension wire. The dilatation catheter has an elongated catheter body with a distal guidewire port in the distal end of the catheter and a proximal guidewire port at least 10 cm but not more than 50 cm from the distal port . The catheter body has a first lumen which extends from the proximal end of the catheter inflation body to the interior of a dilatation balloon adjacent the distal end of the catheter body. A second, much shorter inner lumen is disposed between the proximal and distal guidewire ports and is adapted to slidably receive a guidewire . A plurality of perfusion ports are provided both proximal and distal to the balloon which are in fluid communication with the second inner lumen so that when the balloon is inflated within a patient's vascular system , blood will flow through the proximal perfusion ports and the second inner lumen and out the distal perfusion ports to minimize ischemic conditions distal to the catheter . A stiffening member is disposed within. the catheter body proximal to the proximal **guidewire port** to provide improved pushability. The distal **portion** of the **inflation lumen** should have a transverse cross-sectional area of about 3 to about 20X10-5 inch2 and should not be greater than one-third the cross-sectional area of the perfusion lumen .

DESCRIPTORS:

```
...MAJOR CONCEPTS: Methods and Techniques
...METHODS & EQUIPMENT: surgical method; ...
...elongated intravascular catheter --...
... guidewire ports --...
...surgical method; ...
```

... perfusion ports --...

...surgical method; ...

... readily exchangeable perfusion dilatation catheter --...

...medical equipment, perfusion -type

23/3,K/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.

0013461982 BIOSIS NO.: 200200055493

Readily exchangeable perfusion dilation catheter

AUTHOR: McInnes Peter R (Reprint)

AUTHOR ADDRESS: 4 Grosvenor Court, Hawley Hill Camberley, Surrey, UK\*\*UK JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1252 (4): Nov. 27, 2001 2001

MEDIUM: e-file

PATENT NUMBER: US 6322577 PATENT DATE GRANTED: November 27, 2001 20011127

PATENT CLASSIFICATION: 606-194 PATENT COUNTRY: USA

ISSN: 0098-1133

DOCUMENT TYPE: Patent RECORD TYPE: Abstract LANGUAGE: English

# Readily exchangeable perfusion dilation catheter 2001

ABSTRACT: A perfusion -type dilatation catheter which can be rapidly exchanged for another catheter without the need for exchange wires or guidewire extension wires. The dilatation catheter has an elongated catheter body with a distal guidewire port in the distal end of the catheter and a proximal guidewire port at least 10 cm but not more than 50 cm from the distal port . The catheter body has a first lumen which extends from the proximal end of the catheter inflation body to the interior of a dilatation balloon adjacent the distal end of the catheter body. A second, much shorter inner lumen is disposed between the proximal and distal guidewire ports and is adapted to slidably receive a guidewire . A plurality of perfusion ports are provided both proximal and distal to the balloon which are in fluid communication with the second inner lumen so that when the balloon is inflated within a patient's vascular system , blood will flow through the proximal perfusion ports and the second inner lumen and out the distal perfusion ports to minimize ischemic conditions distal to the catheter . A stiffening member is disposed within the catheter body proximal to the proximal **guidewire port** to provide improved pushability. The distal **portion** of the **inflation lumen** should be lumen should have a transverse cross-sectional area of about 3 to about 20X10-5 inch2 and should not be greater than one-third the cross-sectional area of the perfusion lumen .

DESCRIPTORS:

METHODS & EQUIPMENT: readily exchangeable **perfusion** dilation **catheter** 

23/3,K/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.

0013215884 BIOSIS NO.: 200100387723

Irradiation catheter and method of use

AUTHOR: Teirstein Paul S (Reprint)

AUTHOR ADDRESS: 402 Coast Blvd., South La Jolla, CA, 92037, USA\*\*USA JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1244 (1): Mar. 6, 2001 2001

MEDIUM: e-file

PATENT NUMBER: US 6196996 PATENT DATE GRANTED: March 06, 2001 20010306

PATENT CLASSIFICATION: 604-104 PATENT COUNTRY: USA

ISSN: 0098-1133

DOCUMENT TYPE: Patent RECORD TYPE: Abstract LANGUAGE: English

### Irradiation catheter and method of use 2001

ABSTRACT: A catheter for use with a radioactive source within the catheter to irradiate a selected area of a blood vessel in combination with angioplasty procedures , to prevent restenosis of that area of the blood vessel . The catheter has a quidewire channel formed near its distal end to facilitate use of the catheter as a rapid exchange catheter, allowing insertion of the catheter over a guidewire also used in performance of an angioplasty procedure . The catheter also has a radiation lumen with a sealed end to retain the radioactive source within the catheter . The radiation lumen is sufficiently longer than the guidewire channel to extend into a non-sterile field, keeping the radiation source segregated from the blood, allowing the use of a non-sterile radiation source. The catheter can also be provided with a centering balloon or a set of centering wire loops to center the radioactive source radially within the blood vessel . DESCRIPTORS:

...MAJOR CONCEPTS: Methods and Techniques METHODS & EOUIPMENT: irradiation catheter --...

...irradiation catheter utilization method --...

...utilization method

(Item 4 from file: 5) 23/3,K/4 DIALOG(R) File ·5: Biosis Previews(R) (c) 2003 BIOSIS. All rts. reserv.

BIOSIS NO.: 200100316353 0013144514

Filter flush system and methods of use

AUTHOR: Tsugita Ross S

JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1242 (1): Jan. 2, 2001 2001

MEDIUM: e-file

PATENT NUMBER: US 6168579 PATENT DATE GRANTED: January 02, 2001 20010102 PATENT CLASSIFICATION: 604-9601 PATENT ASSIGNEE: SciMed Life Systems ,

Inc. PATENT COUNTRY: USA ISSN: 0098-1133

DOCUMENT TYPE: Patent RECORD TYPE: Abstract LANGUAGE: English

Filter flush system and methods of use

PATENT ASSIGNEE: SciMed Life Systems , Inc.

ABSTRACT: A filter flush system for temporary placement of a filter in an

artery or vein is disclosed. The system typically includes a guidewire insertable within a guiding catheter, which has an occlusion balloon disposed about its distal end. The guidewire has an expandable filter, which can be collapsed to pass through a lumen and distal port of the guiding catheter. The lumen is adapted to receive a variety of endovascular devices, including angioplasty, atherectomy, and stenting catheters. Fluid medium or blood can be infused through the lumen of the guiding catheter to flush embolic material or mobile plaque generated during the endovascular procedures toward the expanded filter deployed downstream from the region of interest. Methods of using the filter flush system to entrap and remove embolic material from the vessel are also disclosed.

DESCRIPTORS:

...MAJOR CONCEPTS: **Methods** and Techniques METHODS & EQUIPMENT: filter flush **method** --...

...filter method; ...

...filter flush system --

23/3,K/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.

0012053421 BIOSIS NO.: 199900313081 Method and apparatus for dilatation catheterization

AUTHOR: Inderbitzen Mark N (Reprint) AUTHOR ADDRESS: Miramar, FL, USA\*\*USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1221 (3): 19-JUL-99 1999

MEDIUM: print

PATENT NUMBER: US 5895405 PATENT CLASSIFICATION: 606-194 PATENT ASSIGNEE: Cordis Corporation PATENT COUNTRY: USA

ISSN: 0098-1133

DOCUMENT TYPE: Patent RECORD TYPE: Abstract LANGUAGE: English

Method and apparatus for dilatation catheterization 1999

ABSTRACT: Apparatus and method is disclosed for facilitating balloon catheter exchange in angioplasty procedures. A guide catheter allows the balloon catheter to be inserted into the subject to a region near a treatment region within the vascular system. A fluid source is provided for selectively inflating the balloon. A passageway in the catheter body that extends through the catheter balloon opens into the blood vessel via a sideport. A guidewire passageway extends through a distal most part of the catheter body to allow a guidewire to be inserted into the sideport and routed out the catheter body through a distal opening.

DESCRIPTORS:

METHODS & EQUIPMENT: balloon angioplasty...

...surgical method; ...

... balloon catheter --...

...dilatation catheterization --...

...surgical method

23/3,K/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0006801362 BIOSIS NO.: 198988116477 EXPERIENCE WITH ROTATION ATHEROTOMY AND ATHERECTOMY

AUTHOR: STECKMEIER B (Reprint); BAUMGART R; KUEFFER G; SCHWEIBERER L AUTHOR ADDRESS: CHIRURG KLIN INNENSTADT CHIRURGISCHE POLIKLIN UNIV,

NUSSBAUMSTR 20, D-8000 MUENCHEN 2\*\*WEST GERMANY

JOURNAL: Herz 14 (1): p43-51 1989

ISSN: 0340-9937

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: GERMAN

#### 1989

ABSTRACT: In addition to currently available, low risk procedures for reestablishment of patency in arteriosclerotic vascular segments with bougier techniques as described by Dotter and the balloon dilatation modification according to Gruntzig, as necessary together with local thrombolysis, important new developments based...

- ...are the atherectomy according to Simpson as well as the rotation atherotomy with a flexible **catheter** and slowly rotating milling head or rapidly rotating head as used by Kensey. To provide a larger **lumen** of recanalization, we developed an atherotomy lathing **catheter** with a rapidly rotating head and various diameters which is now available for intraoperative use...
- ...by Vollmar with the "ring stripper" is used only intraoperatively and can only be performed retrograde. The effect of laser systems encompasses disintegration and ablation of occlusive material. The rotation atherotomy is based on the capability of discrimination between hard occlusive material and elastic vascular wall through suitable construction of the lathe head. Since, in passive catheters, the capability of lathing at the tip is associated with a high risk of perforation...
- ...disc face perpendicular to the axis of rotation, which protrudes only slightly from the hemispherical **catheter** tip, with a maximum at the center and minimum at the lateral borders, the lathing...
- ...has only a slight risk of perforation and no undesired sheering forces. The optimal lathing **procedure** is characterized by the proper choice of lathing head geometry and velocity of rotation, where the mechanism of action is based on an atraumatic **removal** of the occlusive material. Since with suitable dimensions of the lathe head, the debris consists...
- ...incurred. The prototypes developed function at 10,000 to 50,000 r.p.m. The **catheter** we have developed should be introduced 3 to 4 cm distal to the origin of the **artery** femoris profunda, after placement of a tourniquet, through a lateral incision. Accordingly, **perfusion** of the leg is via collaterals. To avoid emboli, in occlusions longer than 5 cm

- ...to re-establishing patency in the last segment, a Fogarty maneuver is incorporated. With this **catheter**, in seven of ten patients in stages III and IV, successful recanalization was achieved. For the use of the rotation lathe **catheter**, establishment of the indication should still be restrictive since too little experience is available to...
- ...the debris. Its use appears promising for complete occlusion which cannot be passed by a **guidewire** and with adequate run-off. On intraoperative use, if necessary, after unsuccessful atherectomy a bypass
- ...if the debris consists of particles between 10 and 100 .mu.m, they can be removed with a Fogarty catheter. The Simpson atherectomy catheter consists of a windowed-metal housing with a centrally-rotating, displaceable blade which is driven by a long flexible shaft. Juxtaposed to the cutting blade is an inflatable balloon. A flexible guidewire at the tip of the metal housing enables intraluminal steering. After introduction of the catheter with sheath technique, the metal housing is positioned through inflation of the balloon with the obstructive plaque at the opening. At 2,000 r.p.m. the cutting blade is activated and the debris is stored in the bow of the housing. The catheter is available in sizes 7, 9 and 11 French. With this catheter, successful treatment was performed in 17 patients with 23 stenoses in the femoro-popliteal vessels and four stenoses in the pelvic region; three of the pelvic stenoses required redilatation. Histologic...
- ...clinical trials in 1986, now more than 130 patients have been treated with the atherectomy catheter. After atherectomy, the vascular walls appear smooth and, typically, with no tears in the intima. The indication appears established...
- ...or exulcerated plaques as well as for residual stenoses after ballon dilatation or dynamic rotation catheter angioplasty when the stenosis cannot be passed by the guidewire. The atherectomy is now regarded as complimentary to conventional PTA methods and promises to improve further the results of percutaneous transluminal angioplasty.

  DESCRIPTORS:
  - ... MAJOR CONCEPTS: Cardiovascular System --

23/3,K/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2003 BIOSIS. All rts. reserv.

0006755991 BIOSIS NO.: 198988071106 OPEN-ENDED GUIDEWIRE NEW TECHNIQUE FOR BALLOON ANGIOPLASTY OF

CHRONICALLY OCCLUDED CORONARY ARTERIES
AUTHOR: VASSANELLI C (Reprint); TURRI M; MORANDO G; MENEGATTI G; ZARDINI P

AUTHOR: VASSANELLI C (Reprint); TURRI M; MORANDO G; MENEGATTI G; ZARDINI F AUTHOR ADDRESS: DIV DI CARDIOL, P LE A STEFANI 1, 37126 VERONA, ITALY\*\* ITALY

JOURNAL: Catheterization and Cardiovascular Diagnosis 17 (4): p224-227 1989

ISSN: 0098-6569

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: ENGLISH

OPEN-ENDED GUIDEWIRE NEW TECHNIQUE FOR BALLOON ANGIOPLASTY OF CHRONICALLY OCCLUDED CORONARY ARTERIES ... ABSTRACT: coronary occlusion is a growing indication to percutaneous transluminal coronary angioplasty. Since primary success of balloon angioplasty in this condition is usually limited by the difficulty of crossing the occlusion, different techniques have been described for this purpose, such as use of stiff guidewires, coronary infusion catheters , guidewires with an olive-shaped tip, or new developing methods (atherectomy, laser), in association with balloon dilatation. Here, we describe our initial experience with a thick (0.035 in) and relatively stiff open-ended guidewire, which has an inner (0.018 in diameter) lumen provided with a core wire. Several advantages are considered. The core wire yields a perfect means of steerability of the whole system , while pushability of a thicker guidewire is much greater. Moreover, the core wire can be removed , and contrast injections beyond the occlusion through the inner lumen can assure proper intraluminal location. Finally, position across the occlusion can be kept easily, since an exchange wire for conventional balloon catheters can be inserted in the inner lumen of the open-ended quidewire .

DESCRIPTORS:

...MAJOR CONCEPTS: Cardiovascular System --...

... Methods and Techniques

23/3,K/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0006743381 BIOSIS NO.: 198988058496

PULL-THROUGH APPROACH TO PERCUTANEOUS ANGIOPLASTY OF TOTALLY OCCLUDED COMMON ILIAC ARTERIES

AUTHOR: GINSBURG R (Reprint); THORPE P; BOWLES C R; WRIGHT A M; WEXLER L AUTHOR ADDRESS: DEP DIAGN RADIOL NUCLEAR MED, STANFORD UNIVMED CENT, STANFORD, CALIF94305, USA\*\*USA

JOURNAL: Radiology 172 (1): p111-113 1989

ISSN: 0033-8419

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: ENGLISH

# PULL-THROUGH APPROACH TO PERCUTANEOUS ANGIOPLASTY OF TOTALLY OCCLUDED COMMON ILIAC ARTERIES 1989

ABSTRACT: A method has been developed to increase the probability of success of percutaneous transluminal balloon angioplasty of total occlusions of the common iliac artery when conventional methods have failed. In 10 patients with a totally obstructed iliac artery, a guide wire was passed through a catheter placed from the contralateral side around the aortic bifurcation and antegrade through the total obstruction. The end of the wire was either snared by a retrieval basket or guided through a sheath in the ipsilateral common femoral artery, thus providing a firmly anchored pathway for subsequent manipulations. Balloons were then inserted retrograde through both common femoral arteries and dilated. In the first five patients, ipsilateral retrograde passage of a guide wire had failed despite multiple attempts with a variety of devices. In the other five patients, the

contralateral antegrade approach was used initially. The new method was successful in all 10 patients with totally obstructed common iliac arteries.

DESCRIPTORS: HUMAN PERCUTANEOUS TRANSLUMINAL BALLOON ANGIOPLASTY OCCLUSIVE VASCULAR DISEASE GUIDE WIRE CATHETERIZATION DESCRIPTORS:

...MAJOR CONCEPTS: Cardiovascular System --...

... Methods and Techniques

23/3,K/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0005056899 BIOSIS NO.: 198681020790

DISTAL CORONARY ARTERY PERFUSION DURING PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY

AUTHOR: ANDERSON H V (Reprint); LEIMGRUBER P P; ROUBIN G S; NELSON D L; GRUENTZIG A R

AUTHOR ADDRESS: INTERVENTIONAL CARDIOVASCULAR MED, EMORY UNIV HOSPITAL, 1364 CLIFTON ROAD NE, ATLANTA, GEORGIA 30322, USA\*\*USA

JOURNAL: American Heart Journal 110 (4): p720-726 1985

ISSN: 0002-8703

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: ENGLISH

# DISTAL CORONARY ARTERY PERFUSION DURING PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY 1985

- ABSTRACT: **Perfusion** of the coronary **artery** distal to an occluding angioplasty **balloon** was performed in 34 patients undergoing coronary angioplasty (PTCA). A randomized crossover study was employed using two exogenous substances as **perfusates**: lactated Ringer's solution (LR) and a fluorocarbon emulsion (FL), Fluosol-DA 20%. Both substances...
- ...solutions, but the FL will dissolve more oxygen than the LR. During two attempted coronary artery occlusions of 90 seconds each, we perfused through the central lumen (guidewire channel) of the PTCA catheter at 60 ml/min. With FL perfusion the mean time to onset of angina after occlusion was delayed (41 .+-. 21 vs 33...
- ...0.24 vs 0.2 .+-. 0.23 mV, p < 0.001) when compared to LR perfusion .

  Balloon occlusion time was able to be extended with FL perfusion (71 .+-. 22 vs 59 .+-. 22 seconds p < 0.001). These results indicate that perfusion of the distal coronary artery is possible during PTCA and can reduce ischemia during a prolonged balloon occlusion time.

  DESCRIPTORS:
  - ...MAJOR CONCEPTS: Cardiovascular System --

23/3,K/10 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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05543157 E.I. No: EIP00045146385

Title: Aortic perfusion for CPB: critical element analysis of cannula flow rheology for improved hemodynamic performance

Author: Riebman, J.B.; Mager, L.

Corporate Source: Endoscopic Technologies, Inc

Conference Title: 46th Annual Conference and Exposition of ASAIO

Conference Location: New York, NY, USA Conference Date

19000628-19000701

E.I. Conference No.: 56674

Source: ASAIO Journal v 46 n 2 Mar-Apr 2000. p 174

Publication Year: 2000

CODEN: ASATEJ ISSN: 1058-2916

Language: English

Title: Aortic perfusion for CPB: critical element analysis of cannula flow rheology for improved hemodynamic performance

... Abstract: make cardiac surgery less invasive, the use of limited access incisions may preclude direct arterial cannula insertion into the ascending aorta or arch because the aorta cannot be reached or controlled directly through the surgical access site. The standard option for perfusion for closed-chest CPB is standard femoral artery cannulation , with the known attendant risks of femoral retrograde aortic perfusion such as dissection, embolism(due to high flow velocity and turbulence). After analyzing these critical rheologic elements, a unique aortic perfusion system was designed to provide improved performance. Computer-aided design, flow analyses and laboratory testing were employed for design. A new aortic perfusion cannula system was designed to provide improved performance for closed-chest CPB. The multifunction, multilumen arterial perfusion cannula system can be introduced via femoral artery and advanced into the aortic arch over a guide accomplish remote-access antegrade aortic perfusion . The cannula has a large lumen for aortic blood delivery through multiple distal outlet ports positioned throughout the thoracic and abdominal aorta, as well as inflation /deflation, aortic root lumens for aortic occlusion balloon venting and cardioplegia delivery. A dramatic reduction in cannula perfusion outflow velocity is seen with the multiport cannula design with distributed flow through the multiple ports , as well as a restoration of aortic pressure gradients normally seen with antegrade aortic perfusion . Reductions in aortic blood flow turbulence and shear-stress are also observed with the multiport...

...be used to identify opportunities for progress through innovation. For surgical approaches where direct aortic cannulation is not possible or desirable, this antegrade perfusion system is an improved technique for CPB over standard femoral cannulation and perfusion. (Author abstract)

Descriptors: Cardiovascular surgery; Hemodynamics; Capillary flow; Rheology; Cardiovascular system; Computer aided design; Implants (surgical)

Identifiers: Aortic perfusion; Critical element analysis; Cannula flow rheology; Direct arterial cannula insertion

23/3,K/11 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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 Med, Dept Small Anim Med & Surg, E DeBakey inst, College Stn//TX/77843; Texas A&M Univ, Coll Vet Med, Dept Large Anim Med & Surg, College Stn//TX/77843

Journal: JOURNAL OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION, 2002, V 221, N11 (DEC 1), P1586-+

ISSN: 0003-1488 Publication date: 20021201

Publisher: AMER VETERINARY MEDICAL ASSOC, 1931 N MEACHAM RD SUITE 100, SCHAUMBURG, IL 60173-4360 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: Transvenous retrograde portography for identification and characterization of portosystemic shunts in dogs

Abstract: A method for transvenous retrograde portography (TRP) in dogs suspected to have a portosystemic shunt (PSS) and results in 20 dogs are described. For TRP, dogs were anesthetized and positioned in left lateral recumbency A dual-lumen balloon -tipped catheter was inserted into the right jugular vein and advanced into the azygos vein. The balloon was inflated to occlude the azygos vein, and contrast material was injected during fluoroscopic evaluation. The catheter was then positioned in the caudal vena cava just cranial to the diaphragm. The balloon was again inflated to occlude the vena cava, and contrast material was again injected. Once a shunt was identified, selective catheterization was attempted with a guide wire and angled catheter.

A PSS was identified in 18 of the 20 dogs. In 10 of the 18, the shunt **vessel** could be selectively **catheterized**, allowing measurement of **portal** pressures while the shunt was occluded with the **balloon**. In 1 dog, results of TRP were normal, but subsequent exploratory celiotomy revealed a single...

...TRP may be a useful adjunctive diagnostic test that is less invasive than operative mesenteric **vein portography** and allows measurement of **portal** pressures before and after temporary shunt occlusion.

23/3,K/12 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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08046585 Genuine Article#: 240UB No. References: 27

Title: Percutaneous mitral valve dilatation with the multi-track system

Author(s): Bonhoeffer P (REPRINT); Esteves C; Casal U; Tortoledo F; Yonga G; Patel T; Chisholm R; Luxereau P; Ruiz C

Corporate Source: HOP NECKER ENFANTS MALAD, DIV CARDIOL, DEPT PEDIAT CARDIOL, 149 RUE DE SEVRES/F-75743 PARIS 15//FRANCE/ (REPRINT); DANTE PAZZANESE HOSP, /SAO PAULO//BRAZIL/; HOSP CLIN, /CARACAS//VENEZUELA/; MATER MISERICORDIAE HOSP, HEART UNIT/NAIROBI//KENYA/; INST CARDIOL, /AHMEDABAD/GUJARAT/INDIA/; RES CTR, /AHMEDABAD/GUJARAT/INDIA/; ST MICHAELS HOSP, /TORONTO/ON M5B 1W8/CANADA/; HOP TENON, DEPT CARDIOL/F-75970 PARIS//FRANCE/; LOMA LINDA INT HEART INST, /LOMA LINDA//CA/

Journal: CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS, 1999, V48, N2 (OCT), P178-183

ISSN: 1522-1946 Publication date: 19991000

Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: Percutaneous mitral valve dilatation with the multi-track system . 1999

Abstract: We developed the Multi-Track System for percutaneous mitral valvotomy and described the preliminary results in 1995. Here we report the first 100 consecutive cases after the original publication, Two separate balloon catheters are positioned on a single guidewire, The first catheter, with only a distal guidewire lumen, is introduced into the vein and then advanced into the mitral orifice. Subsequently, a rapid exchange balloon catheter running on the same guidewire is inserted and lined up with the first catheter so the two are positioned side by side. Both balloons are then inflated simultaneously, Age of the patients was 31 +/- 12.8 years and weight 50 +/- 14 kg...

...patient had significant mitral insufficiency after dilatation, which did not require surgery. The Multi-Track **System** is a valid alternative to the existing **procedures** for the treatment of mitral stenosis and uses simpler and less costly **catheters** . (C) 1999 Wiley-Liss, Inc.

...Identifiers--DOUBLE- BALLOON; FOLLOW-UP; STENOSIS; VALVOTOMY; VALVULOPLASTY; COMMISSUROTOMY; CATHETER; SINGLE; RESTENOSIS; IMMEDIATE

23/3,K/13 (Item 3 from file: 34)

DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 2003 Inst for Sci Info. All rts. reserv.

05125370 Genuine Article#: VB804 No. References: 12

Title: THE MULTI-TRACK ANGIOGRAPHY CATHETER - A NEW TOOL FOR COMPLEX CATHETERIZATION IN CONGENITAL HEART-DISEASE

Author(s): BONHOEFFER P; PIECHAUD JF; STUMPER O; BONNET D; AGGOUN Y; SIDI D ; KACHANER J

Corporate Source: HOP NECKER ENFANTS MALAD, SERV CARDIOL PEDIAT, 149 RUE SEVRES/F-75743 PARIS 15//FRANCE/

Journal: HEART, 1996, V76, N2 (AUG), P173-177

ISSN: 1355-6037

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: THE MULTI-TRACK ANGIOGRAPHY CATHETER - A NEW TOOL FOR COMPLEX CATHETERIZATION IN CONGENITAL HEART-DISEASE
, 1996

Abstract: Objective - To develop a simple and versatile catheter system for complex cardiac catheterisation because angiography and pressure measurements during diagnostic and interventional cardiac catheterisation are often unsatisfactory.

Methods - The Multi-Track Angio catheter system is a single lumen side-hole catheter with a short distal extension containing a lumen for a standard guidewire. The catheter is introduced over a previously placed guidewire running through this distal extension. It can then be manipulated within the heart by sliding along the guidewire. The tip of the catheter is always stabilised by the guidewire. This stability enhances angiography and pressure recordings.

Results - The Multi-Track Angio catheter system was used in 84 patients (age 1 day - 20 years). Thirty one procedures were diagnostic and 53 interventional. The decision to use the Multi-Track Angio catheter was based on three criteria: firstly, unsatisfactory

angiography obtained with conventional equipment; secondly, difficult catheter course requiring use of a guidewire; and thirdly, requirement for angiography and pressure recordings during interventional procedures. No complications were encountered. High quality angiography could be performed in all cases without catheter recoil.

Conclusions - The Multi-Track Angio catheter system allows for high quality angiography and pressure recordings during diagnostic and interventional cardiac catheterisation. The advantage of the system is that both angiography and pressure recordings can be performed repeatedly from stable catheter positions using a previously placed guidewire. This reduces the need for guidewire manipulations or catheter exchanges and decreases procedure time and the risk of complications.

...Identifiers-- BALLOON ANGIOPLASTY; STENOSIS; ARTERIES; INFANT Research Fronts: 94-7293 001 (BALLOON ANGIOPLASTY; SEVERE AORTIC-STENOSIS; INTERVENTIONAL PEDIATRIC CARDIOLOGY; PULMONARY ATRESIA; CONGENITAL HEART-DISEASE)

# 23/3,K/14 (Item 4 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2003 Inst for Sci Info. All rts. reserv.

04731716 Genuine Article#: UD789 No. References: 15

Title: MITRAL DILATATION WITH THE MULTI-TRACK SYSTEM - AN ALTERNATIVE APPROACH

Author(s): BONHOEFFER P; PIECHAUD JF; SIDI D; YONGA G; JOWI C; JOSHI M; MUGO M; KACHANER J; PARENZAN L

Corporate Source: HOP NECKER ENFANTS MALAD, SERV CARDIOL PEDIAT, 149 RUE SEVRES/F-75743 PARIS 15//FRANCE/; KENYATTA NATL HOSP/NAIROBI//KENYA/; WORLD LAB, ICSC PROJECT MCD4/LAUSANNE//SWITZERLAND/

Journal: CATHETERIZATION AND CARDIOVASCULAR DIAGNOSIS, 1995 , V36, N2 (OCT ), P189-193

ISSN: 0098-6569

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

# Title: MITRAL DILATATION WITH THE MULTI-TRACK SYSTEM - AN ALTERNATIVE APPROACH .

1995

... Abstract: developed a simple and versatile new technique (MultiTrack) for percutaneous mitral valvotomy using two separate balloon catheters positioned on a single guidewire. The first catheter, with only a distal guidewire lumen and a proximal balloon, is introduced over the guidewire into the vein and then advanced into the mitral valve orifice. Subsequently, a normal balloon catheter running on the same guidewire is inserted and lined up with the first catheter so the two are positioned side by side. The balloons are then inflated simultaneously.

The technique was applied in 12 patients between 10 and 44 years of age...

 $\dots$ 52 mmHg) to 12 mmHg (range, 5-22 mmHg).

Mitral dilatation with the Multi-Track system gives results comparable to those with previously described techniques and uses simpler and less costly catheters. (C) 1995 Wiley-Liss, Inc....Identifiers--PERCUTANEOUS BALLOON DILATATION; VALVULOPLASTY;

CATHETER; IMMEDIATE; STENOSIS; VALVOTOMY; VALVE; COMMISSUROTOMY; INOUE Research Fronts: 94-0757 002 (PERCUTANEOUS BALLOON MITRAL VALVULOPLASTY; OPEN SURGICAL COMMISSUROTOMY; MODIFIED INOUE TECHNIQUE)

23/3,K/15 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE
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11006858 EMBASE No: 2001053042

Radiologic placement of tunneled hemodialysis catheters in occluded neck, chest, or small thyrocervical collateral veins in central venous occlusion

Funaki B.; Zaleski G.X.; Leef J.A.; Lorenz J.N.; Van Ha T.; Rosenblum J.D.

Dr. B. Funaki, Department of Radiology, University of Chicago Hospitals, MC 2026, 5841 S Maryland Ave, Chicago, IL 60637 United States AUTHOR EMAIL: bfunaki@midway.uchicago.edu RADIOLOGY) (United States) 2001, 218/2 (471-476)

CODEN: RADLA ISSN: 0033-8419 DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 8

Radiologic placement of tunneled hemodialysis catheters in occluded neck, chest, or small thyrocervical collateral veins in central venous occlusion

PURPOSE: To evaluate interventional radiologic placement of tunneled hemodialysis catheters in small thyrocervical collateral veins or in occluded veins in the neck or chest in patients with limited venous access. MATERIALS AND METHODS: A femoral venous approach was used to recanalize occluded veins or catheterize small collateral veins in 24 patients in whom all major central veins were occluded. A loop snare or catheter was used as a target for antegrade puncture. Metallic stents were deployed if necessary. Once antegrade access was secured, catheters were placed in a conventional fashion. RESULTS: Technical success was achieved in 22 (88%) of 25 procedures (one patient underwent two procedures). All catheters functioned immediately after placement. There were two procedural complications: a vasovagal episode requiring intravenously administered...

...respiratory distress requiring intubation. There were no instances of pneumothorax, nerve injury, or bleeding complications. Catheter malfunction requiring exchange occurred at a rate of 0.67 per 100 catheter days. Infection requiring catheter removal occurred at a rate of 0.06 per 100 catheter days. Primary patency was 90% at 1 month, 71% at 6 months, and 25% at...

...venous access sites have been exhausted, interventional radiologic venous recanalization for the placement of permanent catheters is safe and effective. Catheters placed in recanalized veins or small collateral veins have shorter primary patency rates compared with those of conventionally placed catheters, but the former can be maintained for relatively long periods.

DEVICE RRAND NAME (MANUFACTURER NAME: Super Arroy-flow percutaneous cheath)

DEVICE BRAND NAME/MANUFACTURER NAME: Super Arrow-flex percutaneous sheath/Arrow/United States; Glidewire guide wire /Boston Scientific/United States; Blue Max balloon catheter /Boston Scientific; Wallstent/Boston Scientific; Superstiff Amplatz wire/Boston Scientific; Passage hemostasis valve/merit medical/Ireland; One-S catheter /tessio cath/United States

MEDICAL DESCRIPTORS:

\* vascular access

hemodialysis; central venous catheterization; central venous catheter; femoral vein; collateral circulation; balloon catheter; human; male; female; clinical article; aged; adult; article; priority journal EMTREE CODES:

**E5.140**; **E5.135**; E4.80.840; E2.530.390; E1.130.100.920; E2.620.135.100 2001

23/3,K/16 (Item 2 from file: 73)

DIALOG(R) File 73: EMBASE

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10585021 EMBASE No: 2000050241

New multifunctional percutaneous transluminal coronary angioplasty catheter device capable of balloon inflation , local drug delivery and

coronary perfusion
 Noguchi T.; Yasuda S.; Itoh T.; Arai T.; Kanda K.; Tsutsui N.; Nonogi H.; Matsuda T.

Dr. H. Nonogi, Division of Cardiology, Hospital, National Cardiovascular Center, Fujishiro-dai 5-71, Suita, Osaka 565-8565 Japan

Journal of Cardiology ( J. CARDIOL. ) (Japan) 2000, 35/1 (41-45)

ISSN: 0914-5087 CODEN: JOCAE DOCUMENT TYPE: Journal; Article

LANGUAGE: JAPANESE SUMMARY LANGUAGE: ENGLISH; JAPANESE

NUMBER OF REFERENCES: 6

New multifunctional percutaneous transluminal coronary angioplasty catheter device capable of balloon inflation , local drug delivery and coronary perfusion

A new percutaneous transluminal coronary angioplasty catheter with multiple functions of balloon inflation , local drug delivery and coronary perfusion has been devised. The device consists of an lumen , a drug delivery lumen , and a perfusion (or guide inflatable wire ) lumen . A drug can be infused from the port located distal to the inflated balloon during continuous blood perfusion via the perfusion lumen . Fluorescence-labeled heparin and peroxidase administered using the device permeated into denuded vessel tissues during ongoing perfusion and remained there for over 24 hr. This prototype device indicates the potential therapeutic implications... DEVICE BRAND NAME/MANUFACTURER NAME: Dispatch catheter MEDICAL DESCRIPTORS:

\*transluminal coronary angioplasty; \*coronary artery disease--diagnosis --di; \*coronary artery disease--surgery--su; \*coronary artery disease --therapy--th; \*drug delivery system ; \*gene therapy restenosis--prevention--pc; restenosis--therapy--th; heart perfusion; risk assessment; artery catheterization; fluorescence; thrombogenesis; coronary artery blood flow; artery intima proliferation; balloon catheter ; article 2000

(Item 3 from file: 73) 23/3,K/17 DIALOG(R)File 73:EMBASE

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06917520 EMBASE No: 1997201965

Efficacy of low-molecular-weight heparin delivery with the dispatch catheter following balloon angioplasty in the rabbit lliac artery Baumbach A.; Oberhoff M.; Bohnet A.; Miljak T.; Herdeg C.; Horch B.; Blessing E.; Kunert W.; Haase K.K.; Karsch K.R.

Dr. A. Baumbach, Medizinische Klinik III, Otfried-Muller-Str. 10, 72076 Tubingen Germany

Catheterization and Cardiovascular Diagnosis ( CATHETER. CARDIOVASC.

DIAGN. ) (United States) 1997, 41/3 (303-307)

CODEN: CCDID ISSN: 0098-6569 DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 20

Efficacy of low-molecular-weight heparin delivery with the dispatch catheter following balloon angioplasty in the rabbit lliac artery

Local drug delivery can be achieved with active injection **systems** or passive contact of e compound with the arterial wall. The Dispatch (TM) **catheter** allows for passive diffusion of drugs from drug compartments while preserving blood flow through the...

...solution of the low-molecular-weight heparin Reviparin. In 16 New Zealand white rabbits, successful balloon dilatation was performed in both lilac arteries, followed by local delivery of 4 ml Reviparin (1,000 IU/ml). The arteries were harvested at 7, 28, or 56 d following the procedure. The intimal cell layers increased substantially between 7 and 28 d following balloon dilatation with or without local drug delivery. The medial cell layers showed only a little...

...maximum amount of macrophages in the intima and media was detected after 28 d. The lumen area decreased with time and was 0.6 +/- 0.7 mmsup 2 in the local...

...mmsup 2 in the control group. In conclusion, local delivery of Reviparin with the Dispatch catheter is safe and feasible. However, the infusion of highly concentrated low-molecular- weight heparin over a short period of time did not result in a reduction of neointima formation and restenosis following balloon dilatation in the rabbit lilac artery .

MEDICAL DESCRIPTORS:

\* artery intima proliferation--complication--co; \* artery intima proliferation--drug therapy--dt; \* artery intima proliferation--prevention --pc; \* catheter; \*drug delivery system; \*iliac artery; \*percutaneous transluminal angioplasty; \*restenosis--drug therapy--dt; \*restenosis --complication--co; \*restenosis--prevention--pc angiocardiography; animal experiment; animal model; animal tissue; artery media; artery wall; article; controlled study; drug diffusion; drug efficacy; guide wire; implantable port system; intracoronary infusion; macrophage; nonhuman; rabbit; vascular smooth muscle EMTREE CODES:

...J2.10; G1.680.680; G1.680.670.200; E7.30.840; E5.20.430; E5.140; A11.690.570.550; A13.20.50.550; A13.670.70.570.550; J2...

23/3,K/18 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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05017536 86017682 PMID: 2931743

Antegrade selective catheterization of the superficial femoral

artery using a movable-core guide wire .

Bishop A F; Berkman W A; Palagallo G L

Radiology (UNITED STATES) Nov 1985 , 157 (2) p548, ISSN 0033-8419

Journal Code: 0401260

Document type: Journal Article

Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Antegrade selective catheterization of the superficial femoral artery using a movable-core guide wire .

Nov 1985,

A simplified method of selective antegrade catheterization of the superficial femoral artery using a movable-core guide wire is described. This technique obviates the need for multiple catheter and guide wire manipulations and exchanges when preferential passage of the guide wire into the profunda femoral artery occurs following antegrade common femoral artery puncture.

Descriptors: Angioplasty, Balloon -- methods --MT; \* Catheterization -- instrumentation--IS; \*Femoral Artery; Catheterization -- methods --MT

23/3,K/19 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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02794107 JICST ACCESSION NUMBER: 96A0681576 FILE SEGMENT: JICST-E Evaluation of Coronary Flow Velocity Distal to the Perfusion Balloon Catheter During PTCA Procedure using Doppler Guidewire .

TANAKA NOBUHIRO (1); TAKAZAWA KENJI (1); IBUKIYAMA CHIHARU (1)

(1) Tokyo Medical College

Tokyo Ika Daigaku Zasshi (Journal of Tokyo Medical College), 1996,

VOL.54, NO.3, PAGE.234-241, FIG.7, TBL.2, REF.15

JOURNAL NUMBER: F0570AAB ISSN NO: 0040-8905 CODEN: TIDZA

UNIVERSAL DECIMAL CLASSIFICATION: 616.12-089

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper MEDIA TYPE: Printed Publication

Evaluation of Coronary Flow Velocity Distal to the Perfusion Balloon Catheter During PTCA Procedure using Doppler Guidewire. , 1996

ABSTRACT: Perfusion balloon catheters provide distal coronary flow during PTCA procedure , enabling prolonged inflation without apparent ischemia. Prolonged inflatlion is expected to improve the results of PTCA, recovering from abrupt closure and possibly reducing the restenosis rate. However, in some cases perfusion catheters do not provide sufficient protection for ischemia. We assessed distal coronary flow during PTCA procedure using a Doppler guidewire to evaluate the relationship between distal coronary flow velocity and the appearance of myocardial ischemia. This study included 24 patients who underwent elective PTCA with perfusion catheters . A Doppler guidewire was positioned distal to the lesion in the target vessel through the center lumen of the perfusion catheter in 14 patients, and alongside the perfusion balloon catheter in the other 10 patients. Average peak velocity balloon (APV) and maximal peak velocity (MPV) were measured, and diastolic/systolic velocity ratio (DSVR) was calculated during standard and perfusion balloon catheter inflations and after PTCA procedure. Distal flow during standard balloon inflation could be detected in only 3 patients (12%). The antegrade distal flow provided by perfusion balloon catheters could be recorded in all patients, and the flow increased significantly when the central lumen guidewire was retracted (from APV 9.3.+-.5.0 cm/sec to 13.9.+-.6.5, p<0.01). Even with the perfusion balloon catheter, ischemic ECG change developed in 9 patients (38%) and in one of them inflation could not be sustained. Although APV and MPV in patients with ischemic ECG change were...

...DESCRIPTORS: intra-aortic balloon pumping...

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...indwelling catheter;
...BROADER DESCRIPTORS: vascular surgery...
... balloon dilatation...
... catheterization; ...
...blood vessel prosthesis...
...coronary artery disease...
... vascular disease...
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... catheter ;

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Items
Set
                Description
S1
        56211
                CANULA? OR CANNULA? OR CATHETER?
S2
                DC=(E01.370.370.380.410.200 OR E02.148.110 OR E5.135 OR E5-
             .140 OR E5.145 OR E2.620.135)
S3
         5350
                STYLET? OR GUIDEWIRE? OR GUIDE()WIRE? OR STIFFENER?
S4
         2860
                 (CURVEABLE OR CURVABLE OR MALLEABLE OR FLEXIBLE OR DEFORMA-
             BLE OR CURVATE OR BENDABLE) (2N) (WIRE? OR PROBE? OR NEEDLE? OR
             INTRODUCER? OR ADVANCER?)
S5
      2457575
                METHOD? OR PROCEDURE?
                SYSTEM? OR PROCESS?
S6
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S7
       394634
                INSERT? OR MANIPULAT?
S8
      2054133
                REMOV? OR CONDUCT?
S9
       272696
                DISCHARG? OR PERFUS? OR INFUS?
S10
       340590
                VESSEL? OR VASCULA? OR VEIN? OR ARTERY? OR ARTERIE? OR BLO-
             ODVESSEL?
S11
         5737
                RETROGRADE? OR RETRO()GRADE? OR ANTIGRADE OR ANTEGRADE OR -
             (ANTI OR ANTE)()GRADE OR CARDIOPL?GIA? OR RETROPL?GIA? OR (CA-
             RDIO OR RETRO) () PL?GIA?
S12
                DC=(E04.100.376.374 OR D18)
S13
       370675
                BALLOON? OR INFLAT?
S14
      3364203
                LUMEN? OR INLET? OR OUTLET? OR PASSAGE? OR PORT?
S15
          296
                S1:S2 AND S3:S4 AND S5:S6 AND S7:S9 AND S10 AND S13 AND S14
S16
           38
                S15 AND S11:S12
                S15 AND S7:S9(5N)S3:S4
S17
           82
S18
           12
                 (S17 OR S15) AND S3:S4(5N)S14 AND S9(5N)S14
S19
           14
                S16 AND S17
S20
          113
                 (S17 OR S15) AND S7:S9(5N)S10
S21
           50
                S20 AND S5:S6(5N)S7:S9
S22
           95
                S16 OR S18 OR S19 OR S21
S23
           86
                S22 AND PY<2003
S24
           67
                RD (unique items)
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         (c) 1996 Star Tribune
File 725: (Cleveland) Plain Dealer Aug 1991-2003/Dec 13
         (c) 2003 The Plain Dealer
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24/5/43 (Item 5 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01974636 SUPPLIER NUMBER: 71403706 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Unusual Complication of Retrograde Dissection to the Coronary Sinus of
Valsalva During Percutaneous Revascularization(\*): A Single-Center
Experience and Literature Review.

Yip, Hon-Kan; Wu, Chiung-Jen; Yeh, Kuo-Ho; Hang, Chi-Ling; Fang, Chi-Yuan; Hsieh, Kelvin Yuan-Kai; Fu, Morgan

Chest, 119, 2, 493

Feb, 2001

DUDITORETON FORMATA MAGAZA

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0012-3692

LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 4271 LINE COUNT: 00377

DESCRIPTORS: Transluminal angioplasty--Complications

FILE SEGMENT: HI File 149

24/5/67 (Item 29 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
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01178737 SUPPLIER NUMBER: 07864515

Pull-through approach to percutaneous angioplasty of totally occluded common iliac arteries .

Ginsburg, Robert; Thorpe, Patricia; Bowles, Charles R.; Wright Allan M.; Wexler, Lewis

Radiology, v172, n1, p111(3)

July,

1989

PUBLICATION FORMAT: Magazine/Journal ISSN: 0033-8419 LANGUAGE: English RECORD TYPE: Abstract TARGET AUDIENCE: Professional

ABSTRACT: A new method has been developed to pass a balloon through dense areas of atherosclerotic (hardening of the arteries ) material to open the main artery of the leg. A balloon catheter is a small tube that is pushed through a needle-like inserter into the main artery of the leg. When it reaches the area of the atherosclerotic plaque it expands to open the cavity ( lumen ) of the vessel . In some cases the material is so thick and dense that the catheter can not be directly pushed through the affected area. Therefore, a guide wire may first be inserted and pushed through the dense plaque. This paper reports on a method of pulling the catheter across the atherosclerotic area by snaking the guide wire in from the artery on the opposite side and down ( retrograde ) into the artery which is being operated upon. The catheter is then attached to the guide and it is literally pulled into position. The procedure has been used on 10 hospitalized patients with an average age of 59 years. All patients were severely restricted by their reduced leg arterial blood flow (claudication). The first five attempts to push the guide wire failed, and the pull-through method was then used. The final group of patients had the pull-through method used as the primary means of inserting the balloon In carefully selected cases the pull-through technique can be used to treat more severe atherosclerotic vessel disease by percutaneous (through the skin) technique than was previously possible. The method is not without risks, and the procedure is not as durable as a surgical graft of the blocked area.

DESCRIPTORS: Arterial occlusions--Surgery; Atherosclerosis--Surgery; Angioplasty--Technique; Iliac artery --Surgery; Transluminal angioplasty --Technique; Arteriosclerosis--Surgery
FILE SEGMENT: HI File 149